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Reflection as purposeful, social activity: a  
cultural-historical exploration of recent  
veterinary graduates' experiences during the  
Professional Development Phase

Sheena Margaret Warman

A dissertation submitted to the University of Bristol in accordance with  
the requirements for award of the degree of Doctorate in Education in  
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# ABSTRACT

In recent decades, reflection and reflective practice have emerged as much-debated concepts in professional contexts. Using Cultural-Historical Activity Theory (CHAT), this thesis explores the experiences of recent veterinary graduates as they engage in reflective activity during the Royal College of Veterinary Surgeons' (RCVS) Professional Development Phase (PDP). The term "reflective activity" is employed to conceptualise reflection as an activity situated in a social, cultural and historical context. Analysis of supporting documents and transcripts of interviews with fifteen participants enabled detailed description of the system of reflective activity during the PDP, whilst privileging the experiences of individuals within the system through the lens of the Vygotskian concept of *perezhivanie*. Dialectic analysis was undertaken to identify conflicts, experienced by participants, arising from system-level contradictions. Contradictions were apparent within two overarching themes. Firstly, the need for support for reflective activity was highlighted, with externally-oriented reflective actions such as talking and writing helping convert worry into purposeful reflection, the perceived attributes of other actors in the system impacting on the value of talk as a mediator of reflective activity, and workplace culture impacting on access to resources. Secondly, the formalisation of informal processes led to confusion regarding the purpose of reflective activity, conflict between participants' preferred reflective actions and the format of the online portfolio, and a risk of resentment and reduced engagement arising from the rules associated with the PDP. If the potential outcomes of the system are to be fully realised, new graduates need opportunities to engage in social reflective activity with trusted colleagues with whom there is a shared understanding of the purpose of reflective activity. The findings of this study suggest that reconsideration of the formal expectations of new veterinary graduates and their employers would be warranted and timely.



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## AUTHOR'S DECLARATION

I declare that the work in this dissertation was carried out in accordance with the requirements of the University's *Regulations and Code of Practice for Research Degree Programmes* and that it has not been submitted for any other academic award. Except where indicated by specific reference in the text, the work is the candidate's own work. Work done in collaboration with, or with the assistance of, others, is indicated as such. Any views expressed in the dissertation are those of the author.

SIGNED: ..... DATE:.....





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## LIST of ABBREVIATIONS

CHAT	Cultural Historical Activity Theory
CPD	Continual Professional Development
EMS	Extra-Mural Studies
GDC	General Dental Council
GMC	General Medical Council
PDP	Professional Development Phase
PDR	Professional Development Record
RCVS	Royal College of Veterinary Surgeons
RQ	Research Question



## Chapter 1 SETTING THE SCENE

---

Reflection has become a kind of generic salve to heal all wounds: reflection is taken up to address burnout, professionalism lapses, empathy, cultural competence, wellbeing, diagnostic decision making, medical error, interprofessionalism, lifelong learning, tolerance of ambiguity and *on and on....*I have begun to wonder if we have any shared idea about it at all. (Hodges, 2015, p. 263)

The quote above highlights a current challenge in healthcare education: reflection as a professional competence is assumed by regulatory bodies such as the General Medical Council, General Dental Council, and Royal College of Veterinary Surgeons (GMC, 2017, GDC, 2017, RCVS, 2017e), yet is poorly understood by many of the professionals expected to engage in reflective activity<sup>1</sup>. Theories, definitions and frameworks of reflection abound (for example Hatton and Smith, 1995, Nguyen et al., 2014). Generally, reflection is framed as a conduit for professional learning and development, and many young professionals, in a range of disciplines, must demonstrate their ability to “reflect” through, for example, completion of written portfolios. The formal structures associated with such tasks usually derive from a concept of reflection as a solitary, individual activity, and a competence which can be assessed (Ng et al., 2015). This formal reflective activity may bear little resemblance to the day-to-day activities of the newly qualified professional as they adapt to the realities of the workplace. It is recognised that this transition from undergraduate training to professional working life is a challenging time for many (Fenwick, 2013). It may be that developing an understanding of reflective activity as socially-situated, influenced by the wider context as well as individuals’ experiences, could illuminate ways in which support during this period can be enhanced.

In this dissertation, cultural-historical activity theory (CHAT), a research tradition evolving from early 20<sup>th</sup> century Soviet schools of cultural-historical psychology and philosophy, is used to explore reflective activity experienced by recently qualified

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<sup>1</sup> Where appropriate, the phrase “reflective activity” is used in this thesis, in preference to reflection or reflective practice. This stems from the language that is used within cultural-historical activity theory traditions, highlighting the activity-based understanding of reflection embraced within the study (see Chapter 3).

veterinary surgeons as they make the transition from undergraduate student to professional clinical practice. Reflective activity is understood as comprising a range of actions, such as talking, thinking or writing, with the aim of developing greater understanding of an experience so that future experiences are informed from previous encounters. Reflective activity is conceptualised within the wider system of the Professional Development Phase, influenced by local and wider cultural contexts, the previous experiences of individuals, and the histories of the workplace and wider profession (see section 3.6, p. 57).

In this introductory chapter, I will first set the scene by describing the landscape of veterinary training and the transition to clinical veterinary practice in the UK. Current concepts of reflective activity within veterinary practice in the UK will be outlined, linking to wider social discourses. The aims and research questions will then be introduced. The introduction will finish with an overview of each chapter, providing a roadmap to the dissertation.

### *1.1 Training to be a veterinary surgeon*

In the UK, undergraduate veterinary training is offered at eight Universities. Each offers a five-year programme leading to a degree which is registrable with the profession's governing body, the Royal College of Veterinary Surgeons (RCVS). Most students start their training immediately following completion of secondary school education. The traditional veterinary curriculum comprises two years of training in basic (or pre-clinical) sciences (including anatomy, physiology and biochemistry) and animal husbandry, followed by a year of para-clinical sciences (such as parasitology, microbiology, pharmacology and pathology), before two years of clinical medicine and surgery. In more recent years, veterinary curricula have been modernised, better integrating basic sciences into clinical learning, for example using problem-based learning strategies and a focus on early clinical exposure (Fletcher et al., 2015). The final year in all UK veterinary programmes comprises workplace learning through clinical rotations, where students are active participants in the care of patients, supervised by staff in university hospitals and other clinical workplaces contracted to provide teaching.

Additionally, students are required by the RCVS to undertake 38 weeks of work placements (extra-mural studies, known as EMS) during their training (RCVS, 2018). During the first two years, placements focus on animal husbandry at, for example, riding

stables and farms. The final 26 weeks of EMS are based primarily in clinical workplaces. Veterinary surgeons employed by the clinics providing EMS placements have not normally received any training in teaching; students are prepared for placements through completion of an “EMS Driving Licence” (Bell et al., 2010).

The next section outlines the influence of outcomes-based, competency-focused curricula on undergraduate training.

#### 1.1.1 Competency-based undergraduate training

Traditionally, veterinary medical education has focused on the acquisition and assessment of clinical veterinary knowledge and skills, equipping graduates with understanding of the science of practice and the skills to undertake surgery. More recently, there has been a move to outcomes-based or competency-based curricula, reflecting an appreciation of the wider range of competences required of professionals, such as communication and business skills, and an emphasis of the broader role of the veterinary surgeon in society (Bok et al., 2011). This reflects a similar shift in medical education, with a move from apprenticeship training models (in which much of the learning was implicit), to closely regulated, outcomes-based, competence-assessed models (Hodges, 2010, Morris and Blaney, 2014, Carraccio et al., 2002, Harden et al., 1999).

The RCVS defines competence as “the ability to perform the roles and tasks required by one’s job to the expected standard” (Eraut and du Boulay, 2000, p. 14):

Competence is a concept that integrates knowledge, skills and attitudes, the application of which enables the professional to perform effectively, including being able to cope with contingencies, change and the unexpected. (RCVS, 2014, p. 1)

The RCVS publishes a list of competences required by UK veterinary graduates (RCVS, 2014). These “Day One Competences” are divided into “general professional skills and attributes”, such as communication, teamwork and a commitment to learning, and “practical and clinical competences”, such as taking a clinical history and making a treatment plan.

The focus on assessment of behaviours inherent to outcomes-based curricula has been critiqued as failing to address the complexity and uncertainty of clinical work (Grant, 1999, Talbot, 2004). There is nevertheless a public and regulatory expectation of efficiency and accountability in training programmes; the tension between evidencing competence and encouraging professional competences such as reflection, within the wider context of lifelong learning, is discussed in section 1.3.1.

## *1.2 Starting work as a veterinary surgeon*

Each year, approximately 700 veterinary surgeons graduate from UK universities. Most enter clinical practice within a few months of qualifying (Robinson and Buzzeo, 2013). There is a trend towards feminisation of the profession, reflected in data indicating that although over 80% of recent graduates are female, only around 20% of practice owners are female (Robinson and Buzzeo, 2013, Buzzeo et al., 2014).

UK veterinary graduates can choose to work in any aspect of veterinary practice post-qualification, usually defined by the range of species treated, for example small animal, equine, farm animal or “mixed” practice (incorporating a wide range of species). Over 60% of recently qualified veterinary surgeons are employed in small animal practice (Robinson and Buzzeo, 2013). Small animal practices usually comprise a central hospital building and satellite branch practices where facilities may be more limited. Recently qualified veterinary surgeons in small animal practice normally have support from experienced colleagues, including vets, nurses and receptionists. At times, at a branch surgery or outwith normal working hours, there may be “sole-charge” work where they are the only veterinary surgeon on the premises, sometimes supported by a nurse or receptionist. In contrast, veterinary surgeons in equine and farm practices usually travel unaccompanied to owners’ premises, returning to the practice base as required during the day (Warman, 2015).

This study focuses on graduates working in small animal practice settings. There are a variety of business models for small animal practices in the UK, employing veterinary surgeons, veterinary nurses, and support staff. In the traditional independent private practice model, practices are owned by one or more partners (usually veterinary surgeons). These practices range from small, single-site settings, to large hospital practices with multiple branches. There has been a recent shift towards corporatisation of the profession, with around 30% of practices currently owned by large corporates and

an expectation that this could be as high as 70% within the next five years (Waters, 2017). Corporates employ veterinary surgeons at a range of levels, from new graduates to experienced clinical directors. Small animal veterinary surgeons are also employed in charity practices providing subsidised care for pets belonging to owners with limited resources. A small number of new graduates undertake internships in tertiary referral hospitals, usually with a view to undertaking further specialist training in the future; in this context, the individual often has limited primary case responsibility but supports the specialist teams with a range of tasks. Some new graduates undertake short-term locum work at a variety of workplaces.

#### 1.2.1 The Professional Development Phase (PDP)

Newly qualified professionals' transition to practice is a challenging and exciting time in their development (see 2.2). Many professions have a formalised period of further training required by their regulatory body, such as the General Dental Council (GDC, 2017) or General Medical Council (GMC, 2017). In 2007, the RCVS introduced the Professional Development Phase (PDP) with the aim:

... to help newly qualified veterinary graduates make the transition from life as a veterinary student to working in clinical practice as a professional veterinary surgeon. It provides a structure whereby new graduates, with the support of their employer and new colleagues, can continue to develop their professional and clinical skills, reflect on their progress and plan their future professional development. (RCVS, 2017e, no page number available)

The RCVS lists the "PDP Competences" (prior to 2016, these were known as "Year One Competences"), building closely on the Day One Competences, encompassing both professional and practical skills and attributes (RCVS, 2016b). In order to pass the PDP, recent graduates are required to complete and submit an online portfolio, the Professional Development Record (PDR) (RCVS, 2017e). The PDR requires graduates to record numbers of clinical cases and procedures, rate their confidence in different domains of expertise, and reflect on their progression towards the PDP competences. Once the portfolio is completed, the graduate and their employer are required to sign a declaration that the graduate has taken part in the process and that their PDR has been discussed. The applicant's PDR is then reviewed by an RCVS post-graduate dean to ensure there is sufficient evidence of experience and reflective activity, providing



feedback and further advice to the graduate as required. The deans can be contacted for advice, via the online system, at any point during the PDP. Each dean oversees several hundred recent graduates at any one time. Most graduates complete the PDR (and therefore the PDP) within the first 18 months of working in clinical practice. A three-year time limit was introduced in 2015; prior to this no deadline was specified, although completion was a pre-requisite for registering on many post-graduate qualifications (RCVS, 2016b).

The RCVS provides guidance on the PDP for veterinary graduates and employers (RCVS, 2016b). The Guidance document is split into four sections: Section One, “Guidance on the PDP”; Section Two “Frequently asked questions”; Section Three “The RCVS PDP competences” (a list of the expected competences, covering a broad range of technical and professional skills); and Section Four, the PDP Clinical Procedures Checklists (focusing exclusively on technical competences) (RCVS, 2016b). Additional resources are available online, including a short film, a webinar, and examples of reflective notes (<http://www.rcvs.org.uk/education/lifelong-learning-for-veterinary-surgeons/professional-development-phase-pdp/>).

### 1.2.2 Challenges of the Professional Development Phase

Whilst the PDP was developed to help support the transition of veterinary graduates to professional practice, I argue that there is a need for better understanding of both the system of support available and the experiences of the graduates themselves. Before explaining why I have chosen to focus on reflective activity as the lens through which to better understand the PDP, two key challenges to the profession are discussed: new graduates’ perceptions of support in the workplace, and concerns relating to wellbeing in the profession.

Data from a national survey of recent veterinary graduates (n=1368) (Robinson and Buzzeo, 2013) indicated that, of the 187 respondents for whom their first job did not meet their needs, 53% cited lack of professional support as the main reason. An earlier study (Routly et al., 2002) identified similar issues: a lack of support manifesting as a lack of feedback, with one in three graduates leaving their first job within two years. An Australian study identified that approximately ten percent of recent graduates felt unsupported by their boss and/or workplace, with many of these graduates leaving their first job within 12 months (Heath, 2005). A study in New Zealand again highlighted the

importance of supportive colleagues during this challenging transition, particularly in light of demographic changes such as increasingly urban background of students, feminisation of the profession, and a changing social emphasis from considering work as a vocation towards work as a job (Gilling and Parkinson, 2009). This study also highlighted the time, energy and financial demands on the employer as they support new graduates. Collectively, these studies highlight that research which aims to support the development of recently qualified veterinary surgeons must explore the wider workplace and social context to understand the challenges that need to be addressed.

In addition to considering the interactions within the workplace, it is also important to consider the experiences of the individuals within the system. There are increasing concerns regarding the wellbeing of veterinary surgeons and the wider veterinary team (RCVS, 2017d). It is recognised that the profession suffers from a disproportionately high suicide rate as well as high levels of poor mental health (Mellanby, 2005, Platt et al., 2010). The British Veterinary Association's "Voice of the Profession Survey" reported that 41% of veterinary surgeons, particular younger members of the profession, felt that their working life did not live up to their expectations (Vetfutures, 2015a), with 80% of students and recent graduates listing "better veterinary lives (wellbeing)" as a top priority for the future of the profession (Vetfutures, 2015b). Recognising the additional needs of recent graduates, initiatives to improve support include the British Veterinary Association Young Vet Network (Marr, 2016), and a mentoring scheme set up by Dublin veterinary school in which veterinary surgeons with three to ten years' post-graduation experience volunteer to mentor recent graduates in a semi-structured manner (Graham, 2016).

It is apparent that a proportion of recent graduates perceive a lack of support, and that there is a need to enhance support for both their clinical and personal development. In this study, I conceptualise reflective activity as integral to this development, by providing an opportunity to understand and learn from experiences. The next section discusses the importance of "reflection" within the profession, drawing on wider social discourses to explore concepts of reflection as both a competence and integral part of lifelong learning.

### *1.3 A focus on “reflection”*

Concepts of “reflection” and “reflective practice” have been considered central to the teaching and nursing professions for several decades, integrated into training and professional development both pre- and post-qualification (Wong et al., 1995, Hatton and Smith, 1995, Powell, 1989). It is only more recently that reflection and reflective practice have become incorporated into training programmes for doctors (Ng et al., 2015) and veterinary surgeons (Mossop and Senior, 2008). In the pragmatic, problem-solving environment of clinical practice, reflection may be perceived as a somewhat abstract concept, and may be a tacit process for experienced practitioners (Mann et al., 2009). Within a generation, expectations have shifted from professionals adopting a distanced, paternalistic approach to caring, to an approach in which reflection on one’s own and others’ feelings is expected and encouraged (Hargreaves, 2010).

Within the veterinary profession, an ability to reflect is explicitly referred to within RCVS Day One Competences, in the context of evidence-based veterinary medicine (Competence 10) and lifelong learning (Competence 14), and alluded to in the context of self-audit and peer-group review (Competence 15) (RCVS, 2014). The PDP Competences, in a similar manner to the Day One Competences, refer to reflection as part of clinical governance, a commitment to learning and professional development, self-audit, and peer-group review (RCVS, 2016b). Very little guidance is provided as to actions that might be encompassed by the term reflection. The linking of reflection to peer-group review suggests an understanding that reflection can be collaborative, through discussion of experiences with colleagues and peers. However, there is an emphasis on personal, written, assessed forms of reflection through the use of reflective portfolios in undergraduate education (Mossop and Senior, 2008, Warman et al., 2014) and, during the PDP, the online professional development record.

Beyond the PDP, veterinary surgeons are required to undertake 35 hours of Continuing Professional Development (CPD) annually, recorded via an online log which encourages (but does not require) veterinary surgeons to reflect on and plan their learning. Following completion of the PDP, veterinary surgeons can choose to undertake further post-graduate clinical qualifications, such as the RCVS Certificates in Advanced Veterinary Practice (RCVS, 2017a), many of which incorporate reflective writing within the coursework requirements (May and Kinnison, 2015). In 2016, requirements for CPD

were reviewed, and an outcomes-based process proposed, incorporating four stages: plan, do, record, reflect (RCVS, 2016a, RCVS, 2016c). Consultation with the profession indicated that there was a great deal of concern over time implications for recording the planning of and reflecting on CPD activities, and that there was much confusion over the definition and expectation of “reflection” (RCVS, 2016c).

Whilst reflection is widely promoted in veterinary practice in the UK, during the PDP and beyond, reflection itself is rarely defined (e.g. RCVS, 2014, RCVS, 2016b), and research is limited (discussed in sections 2.3.3 and 2.3.4). Confusion around what it means to reflect is exemplified by an email I received from an experienced veterinary surgeon, who had read a participant recruitment letter for my study:

I was struck by your letter in the Vet Record and would like to ask you a question - could you kindly tell me what reflective practice is please? I've recently completed a Masters and written what I hope was a reflective essay on my dissertation. I've also been involved in an e-mail discussion on what reflection entails, particularly with regards to the RCVS proposals on CPD. However, I'm still unsure what it means and how I would apply it, and I would struggle to explain it to someone else – a sure sign I haven't fully understood the concept. (Richards, 2016, personal communication, reproduced with permission)

Some of this confusion may emerge from the influence of two different social discourses on the development of the PDP and understandings of reflection, discussed in the next section.

#### 1.3.1 Accountable professionals and lifelong learning

There are two related yet contrasting discourses which are likely to have influenced the creation of the PDP and varied understandings of what it means to reflect. Firstly, the emergence of New Public Management (Hood, 1991) led to an increased focus on accountability of professionals, with expectation of standards and measures of performance. Previously privileged by the public with a large degree of trust and autonomy, the performance of professionals became something to be monitored and measured, with an increased expectation of governance (Mulderigg, 2011). This is reflected in the emergence of outcomes-based curricula and formal requirements for

documentation of post-qualification training and development. The veterinary profession was not immune to this shift in its relationship with the public. The Professional Development Phase was developed by the RCVS to monitor and evidence the competence of recently qualified professionals; within this framework, “reflection” is a competence that must be developed and evidenced.

Secondly, the contrasting social imaginary of Lifelong Learning has permeated diverse professional workplaces (Quicke, 2000, Robertson 2012, Hager, 2004, OECD, 1996). There is an expectation that “individuals, groups and organizations ‘turn around’ upon themselves, critically examine their rationales and values and, if necessary deliberately reorder or reinvent their identities and structures” (Quicke, 2000, p. 299-300), an expectation that resonates with most conceptions of reflection. The shift to a focus on reflective activity within professional training is likely to be at least in part a consequence of this wider discourse. The resulting influence on undergraduate training and societal expectations may contribute to a lack of a shared understanding of reflection within the profession.

It can be argued there is both resonance and tension between Lifelong Learning and New Public Management: there is a tacit assumption that professionals can only be trusted if they document their learning and competence; yet documenting learning from mistakes risks undermining the image of a competent professional. The development of, and engagement with, any system, such as the PDP, which purports both to evidence competence and support development requires careful negotiation of this tension. Common conceptions of reflection as a competence in itself, or a tool for assessment, can be understood as having emerged from these discourses. This tension may be responsible for some of the challenges encountered when reflection is enacted in healthcare settings (explored further in 2.3).

#### *1.4 Identifying a gap: aims and research questions*

From a personal perspective, qualifying as a veterinary surgeon in 1997, I had no experience of the expectations and requirements of the PDP. As a veterinary teacher with responsibility for oversight of the final year of undergraduate veterinary training at a UK university, it seemed highly relevant to develop a better personal understanding of graduates’ experiences with the PDP, to help better equip them during undergraduate training. Conversations with recent graduates suggested a sense of frustration with the

PDP; conversations with my peers (many of whom employ recent graduates) suggested a lack of understanding regarding the requirements and expectations of the PDP, and what was meant by reflection. In the absence of any formal evaluation of the PDP (although an evaluation project has since been undertaken (Flaxman et al., 2017), I was motivated to understand why reflective activity, as part of professional development, seemed to be so poorly understood, and why the PDP was causing frustration amongst the people it aimed to support. I wanted to find out what reflective actions recent graduates engage in and find to be useful, and how these actions are influenced by the individual's experiences, the workplace context, and wider system.

Through awareness of the wider social discourses of New Public Management and Lifelong Learning, historical reasons for the tensions experienced during the transition to practice become apparent; new graduates, in completing their PDP, are attempting both to evidence their competence and demonstrate their ability to reflect and learn from their mistakes. The shift to an emphasis on reflection in undergraduate training means that there may be a disconnect between the understandings of reflective activity from the perspectives of recent graduates and their employers. The perceptions of a lack of support during the transition to practice suggest that there is a need for research that enhances our understanding of both the systems of support and the graduates' experiences of these systems within their workplaces. In this thesis, I argue that increasing our understanding of reflection as a social, purposeful activity can help, conceptualising reflective activity as the actions undertaken by graduates as they attempt to make sense of their experiences during the PDP. I understand reflective activity as inherently social, influenced by relationships, experiences and cultures within and beyond the workplace. If we can understand how, with whom, and why individuals prefer to engage in reflective activity, then it may be possible to shed light on aspects of working life where recent graduates feel unsupported or experience tension during the transition to practice.

The aim of the study was to understand how recently graduated small animal veterinary surgeons engage in reflective activity. Three research questions were identified:

1. How is the system of reflective activity constructed during recently qualified veterinary surgeons' Professional Development Phase?
  - a. What resources are used and how do they mediate reflective activity?

- b. What is the role of interaction with others?
  - c. What are the outcomes of reflective activity?
- 2. What roles do affect and experience play in brokering and motivating reflective activity?
- 3. What conflicts and contradictions are experienced when engaging in reflective activity during the professional development phase, and how do these impact on the outcome of reflective activity?

By drawing together and understanding both the system (summarised in Figure 5-2, p. 93) and the experiences of individuals, it is possible to identify potential avenues for improvements to better support newly qualified veterinary surgeons as they negotiate the transition to working life.

### *1.5 Summary of chapters*

In Chapter 1, an overview has been provided of the wider social and professional context for the study. The landscape of veterinary education in the UK has been introduced, highlighting the focus on the development of clinical and professional competences during both undergraduate training and the Professional Development Phase. An argument has been made that, although the Professional Development Phase aims to support recent veterinary graduates during the transition to practice, there is a need to understand better this transition and the experiences of graduates. The challenges of conceptualising reflection have been introduced, and an argument made for using reflective activity as a lens through which to shed light on some of the tensions experienced within the system. The research questions have been introduced.

In Chapter 2, through consideration of empirical research, the case is made for using sociocultural approaches for researching reflective activity in the workplace, highlighting the importance of social participation and creation of knowledge by communities. The challenges and complexities of clinical workplaces are considered. The literature relating to the challenges of the transition to the professional workplace is reviewed, emphasising the importance of interaction with supportive colleagues. Finally, the challenges of defining reflection as a component of workplace learning are discussed, focusing on conflicting understandings of reflection as a social or individual activity, and current conceptions of reflection as a tool and competency. An argument is made for

considering reflective activity as a collective, social undertaking, to enhance support for recent graduates during the transition to practice.

In Chapter 3, a justification is made for using Cultural-Historical Activity Theory to frame the study, tracing its origins from the challenges of overcoming mind-body dualism, through the work of Vygotsky, Leont'ev and Engeström. Vygotskian concepts of mediation and relationships between thought and speech are explored, and the concept of dialectics introduced as a driving force for development. *Perezhivanie* is introduced as a way of understanding the experiences of individuals within the system, linking the individual and environment, and integrating affect with action. Reflective activity, as a component of development, is discussed and defined from a Cultural-Historical Activity Theory perspective, before outlining the theoretical framework for the study.

In Chapter 4, the study's epistemological underpinnings are described. The study design, including both data collection and analysis, are explained and critiqued, and ethical considerations are discussed. The findings are presented in two separate chapters. Chapter 5 provides details of the empirical context and the participants, before delineating the activity system as described in RCVS documents and as constructed during data collection from participants. In Chapter 6, findings related to subjectivity are presented, focusing on the influence of affect and continuity of experience on the activity system. This is followed by detailed analysis of the conflicts apparent within the system, and the contradictions from which they arise.

In Chapter 7, the key findings are discussed from the perspective of each of the research questions, explicitly interpreting the findings through the lens of CHAT and relating findings to the empirical literature. Chapter 8 discusses the strengths and weaknesses of the study, and explicates how the work has contributed both to current knowledge and the development of methodology within CHAT. Finally, recommendations arising from the study are made.



## Chapter 2 LEARNING THROUGH REFLECTION IN CLINICAL SETTINGS

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In this chapter it will be argued that there is a need for research that approaches reflective activity as a social, purposeful and integral part of working life, to support better the learning and development of recently qualified professionals in complex healthcare settings. The first section will outline recent developments in our understanding of learning in workplace settings, focusing on the importance of social participation, and the creation of knowledge by the community, highlighting the value that sociocultural approaches bring to understandings of the workplace (discussed further in Chapter 3). The second section explores challenges of the transition to professional practice, highlighting the importance of supportive interaction with colleagues, drawing on literature from a range of professions and reviewing recent studies which have highlighted issues of concern to the veterinary profession. In the third section, the challenges of defining reflective activity as a component of workplace learning will be discussed. Limitations of current approaches to reflective activity will be discussed, exploring the difficulties which arise if reflection is understood as a solitary activity, or as a professional competence which needs to be measured and assessed.

### *2.1 Learning in the workplace*

Research relating to learning in the workplace has emerged in recent decades as a dynamic, diverse body of literature, spanning a wide range of disciplines such as business, education, and healthcare, from a range of perspectives including human resource development, management, and critical studies (Sawchuk, 2011, Fenwick, 2008b). Whilst the terms “workplace learning” and “work-based learning” are often used interchangeably, “workplace learning” is generally used when discussing learning as social interaction in the workplace, often drawing on Vygotskian traditions (see 3.2.3) (Evans et al., 2011), or from the perspective of human resource development (Jacobs and Park, 2009). In contrast, “work-based learning” is generally used when referring to work placements as components of educational programmes in secondary or tertiary education settings (Solomon and Boud, 2011, Burke et al., 2009).

Policy and practices in different geographical contexts have led to differing approaches and priorities for research into workplace and work-based learning (Sawchuk, 2011).

Workplaces are complex environments, with multiple and varied opportunities for individual and collective learning. Sociocultural approaches to researching learning in clinical workplaces (discussed further in 3.1) support our understanding of how and why health professionals learn, with a focus on context, mediated learning, and historical and cultural influences. Many debates and strands of research have focused on two key areas: individual and collective learning in social settings (Fenwick, 2008a, Fenwick, 2008b, Gruber and Harteis, 2011), and formal compared to informal aspects of learning (Boud, 2006, Eraut, 2000, Billett, 2002). Research relating to each is reviewed briefly in this section.

Eraut, through a large scale programme researching the learning of professionals, technicians and managers (Eraut, 2000, Eraut, 2004a), demonstrated how careful analysis of practice can provide tools for enhancing learning, and developed his work to explore both personal and social perspectives, as well as contextual factors (Eraut, 2011). Eraut highlighted the learning that happens through collaboration and feedback, the impact of individuals' confidence and commitment, and contextual factors such as expectations and working patterns. Further recognising the role of community, varied forms of participation in workplace learning have been explored through Billett's study of workplace affordances (Billett, 2001), Wenger's communities of practice model (Wenger, 1998), and through researching apprenticeships in vocational education and training in a wide range of industries (Fuller et al., 2005, Fuller and Unwin, 2011, Fuller et al., 2015). The concept of professional learning communities has garnered interest in educational settings in recent years (Stoll et al., 2006), exploring the collective capacity of a community to sustain development and improvement. Other approaches explore how the complexities of wider systems influence learning, for example using cultural-historical activity theory (see 3.3), to explore how tensions within a system of work lead to collaborative learning and development within the system (Sannino et al., 2009b, Daniels, 2005). Other bodies of work use complexity theory to explore learning as a constructed, emergent phenomenon in which the collective and individuals interact, through work practices, to discover and generate learning "from a complex web of contextual, interactional and expectational factors" (Johnsson and Boud, 2010, p. 360) (Fenwick, 2012, Lizier, 2017, Davis and Sumara, 2001). These studies have highlighted the interactional nature of learning but, with a focus on the collective, can be criticised for inadequate consideration of motivations and agency of actors within the community.

Whilst much of the workplace learning literature has focused on formal aspects of learning, for example in vocational education and training (Fuller and Unwin, 2011), the discourse of lifelong learning in the workplace (Hager, 2004) (see 1.3.1) and the acknowledgement that much learning is tacit or informal in nature (Eraut, 2004a) have led to debates as to the relative importance of formal compared to informal learning (Boud and Hager, 2012). There are several bodies of practice-based empirical work which highlight that some degree of formalisation of informal learning, through workplace processes such as effective support and opportunities for feedback, are necessary to create conditions for learning (Skule, 2004, Ellström, 2001, Fuller et al., 2015, Boud et al., 2006). However, there is a paradox inherent to formalising the informal; formalising an informal learning interaction such as tea-room conversation is likely to meet with resistance and risk undermining any learning that might otherwise occur (Boud et al., 2009). A second risk with viewing learning in the workplace as a formal activity is that individual agency and other aspects of subjectivity such as the experience of individuals can be overlooked. Recent literature explores how learners “come to know how to engage with others” (Billett and Choy, 2013, p. 268), developing our understanding of the factors that constrain or support opportunities for learning (Billett, 2010, Billett and Choy, 2013, Fenwick, 2008a, Vähäsantanen et al., 2017). It is increasingly recognised that research is needed which focuses on cultural, social and affective aspects of learning in workplace settings (Illeris, 2011, Beatty, 2011).

In summary, the workplace learning literature suggests that research is needed which takes a sociocultural approach to learning, analysing the collective system without losing sight of the subjectivity of individuals. The next section introduces recent research relating to learning in healthcare settings.

### 2.1.1 Learning in the clinical workplace

To understand how best to support recently qualified professionals as they learn and develop requires research that considers the workplace as a community, extending beyond the individual to encompass the wider team, resources and processes, and privileges interaction between individuals and the system itself. Learning is *part* of social practice (Bleakley et al., 2011, Scholz et al., 2013, Morris and Blaney, 2014, Evans, 2012), and it is important that an understanding is developed of both the individual’s experiences of any training system, and the system itself. Billet (2016) has highlighted the importance of the actions, agency and intentions of learners whilst foregrounding

the socially-situated nature of learning in clinical workplaces, emphasising the role of engaging in goal-directed work with the support of more experienced colleagues. There is the opportunity to learn from experience, but also experience the learning, in the social environment (Dornan et al., 2007, Dornan et al., 2014, Teunissen, 2015), highlighting contextual, relational, and affective aspects of learning.

Recent research on learning in the veterinary workplace, whilst not explicitly drawing on sociocultural theories, has started to highlight some of the challenges that are likely to be experienced by the individual in the wider context of the workplace. This section summarises current research, focusing on feedback, conceptions of workplace learning, and the impact of assessment. Whilst the literature focuses on undergraduate rather than post-qualification clinical training, the challenges identified are similar to those found in studies of post-qualification learning in medical workplaces (Dornan, 2012, Teunissen, 2015).

Focusing on feedback interactions as a key component of learning during undergraduate placements in clinical environments, several studies have highlighted the importance of a trusting relationship between the learner and teacher, the motivation of the learner in seeking feedback, the influence of the physical and mental wellbeing of the learner on their engagement in feedback discussions, and the challenges imposed by the time-pressured environment of clinical practice (Bok et al., 2016, Warman et al., 2014, Duijn et al., 2017, de Jong et al., 2017, Bok et al., 2013b). These studies highlight the importance of consideration of practical and affective aspects of working life that facilitate interaction and positive working relationships.

Veterinary students' conceptions of, and approaches to, the clinical learning environment have been shown to impact the outcome of their learning experiences; students with a fragmented understanding of the learning environment and a surface approach to engagement with the opportunities provided were perceived as less practice-ready by their supervisors (Matthew et al., 2017). Similarly, teachers need to be supported to develop an understanding of their role in the clinical workplace that provides a safe learning environment, balances the needs of patients and students, and makes the most of the available opportunities (van Gelderen et al., 2017, Magnier et al., 2014, Magnier et al., 2011). These studies highlight the challenges of maintaining a

supportive environment in a busy workplace, and the importance of shared conceptions of learning.

Several studies have explored the impact of formal assessment on student learning in veterinary clinics. The use of specific workplace-based assessment tools to assess competences has been limited mainly to the undergraduate setting (Baillie et al., 2014). Challenges inherent to the use of these tools include the limited time available for provision of individualised written feedback, balancing the summative (grade) and formative (feedback) nature of the assessment procedures, and the difficulties in judging competency (Norman, 2017, Weijs et al., 2015, Bok et al., 2013a). These studies again highlight the challenges that busy environments create for learning with and from more experienced colleagues, and the importance of shared conceptions of learning and competence.

With most published research focusing on undergraduate training, there is a need for research that furthers our understanding of the learning experiences of recent veterinary graduates, to explore the role of trusted colleagues in providing support for learning, the need to balance learning with patient care, and the importance of a shared understanding of recent graduates' learning needs amongst the practice team. The transition from university to professional practice is a challenging time; the next section explores these challenges, before reviewing the evidence for focusing on support for recent veterinary graduates.

## *2.2 The challenges of transition to professional practice*

The transition from the relatively supported learning environment of university to the world of work and professional autonomy is a challenging time. Individuals must learn to apply theory to complex real-world situations, whilst negotiating the expectations of their clients, colleagues and regulators, and developing their own professional skills and identities (Fenwick, 2013). The transition can be interpreted as an opportunity for learning and positive personal challenge (Teunissen and Westerman, 2011). However, for many individuals across a range of settings such as medicine (Teunissen and Westerman, 2011, Brennan et al., 2010, Lundin et al., 2018), nursing (Higgins et al., 2010) and veterinary practice (Mastenbroek et al., 2015, Heath, 2005, Gilling and Parkinson, 2009, Rhind et al., 2011, Routly et al., 2002), the transition is perceived as a particularly stressful time.

What underpins the challenges and stress associated with this transition? There is inevitably a gap between theory and practice, recognised in a wide range of professions (Roth et al., 2014), including healthcare (e.g. Brown, 2012). Whilst modern approaches to undergraduate healthcare education attempt to bridge the divide through extensive use of problem- (or case-) based learning (Albanese and Dast, 2014), simulation (Ker and Bradley, 2014, Baillie et al., 2010) and workplace apprenticeships (Morris and Blaney, 2014, Bleakley and Brennan, 2011), the increased accountability and responsibility following qualification can be personally challenging. Additionally, in high-risk professions such as fire-fighting, aviation and healthcare, errors have adverse implications for both the public and the new professional (Kilminster et al., 2010b, Mellanby and Herrtage, 2004).

Graduates need support to help them navigate their changing responsibilities; it is increasingly recognised that this support needs to focus beyond clinical skill development to incorporate wider cultural and affective aspects of experience (Lundin et al., 2018, Mastenbroek et al., 2014c). International veterinary surveys have highlighted concerns expressed by recent graduates reflecting a lack of support during the first few years post-qualification (see 1.2.2). Factors such as demographic changes in the profession and the practical and financial demands of running a business impact on the perceptions and availability of support, with a negative impact on graduates' wellbeing, development and retention in the workplace (Gilling and Parkinson, 2009, Heath, 2005). It has been reported that 17% of recent veterinary graduates, particularly females, perceive that they do not receive enough affective/social support from their employers and colleagues (Robinson and Buzzeo, 2013). A perceived lack of support from older colleagues in an increasingly feminised profession (Buzzeo et al., 2014) may reflect both generational and gender differences and expectations. It has been suggested that "within one generation there has been a complete reversal of the emotional expectations of professional people" (Hargreaves, 2010, p. 92). It is also possible that there is an impact of cultural gender differences in affective development, with girls in Western societies socialised from an early age to be more aware of the affective dimensions of their lives (Ratner, 2000).

In healthcare settings, the influence of affect on learning activities is usually explored from a cognitive psychology perspective (McConnell and Eva, 2015), and there is limited research that explores the interactions between affective and social aspects of learning.

Studies have identified the importance of cultural affective “rules” (MacLaren et al., 2016), and the ways in which work-related feelings influence wellbeing have been highlighted (Makitalo, 2005). The importance of a “socio-emotional” space has been reported, where supportive interactions, friendly atmosphere, and positive role-modelling create a workplace in which learners feel able to optimise their learning (van der Zwet et al., 2011). In an attempt to understand the high level of burnout in young veterinary graduates, a “job demands-resources” model has been used in the Netherlands, with one in five female veterinary surgeons meeting the criteria for burnout in the first five years post-graduation, and only one in eight veterinary surgeons highly engaged in their work in that period. Improved support and opportunities for professional development were identified as opportunities to improve work engagement and prevent cynicism (Mastenbroek et al., 2014b, Mastenbroek et al., 2014a, Mastenbroek et al., 2014c).

It would appear that the transition to practice is fraught with both challenge and excitement; the young professional needs to be supported to learn and consolidate their skills and identities, whilst minimising the risks to patients (Mellanby and Herrtage, 2004). Supporting this transition is thus an essential challenge for the profession, and there is a need for research which explores and evaluates initiatives designed to provide this support.

The aim of the Royal College of Veterinary Surgeon’s Professional Development Phase (see 1.2.1), is to support recently qualified veterinary surgeons through this transition, with a focus on developing their reflective skills in the context of a wider privileging of reflective activity as part of professional development (Boud et al., 2006, Kilminster et al., 2010a). Yet, graduates still perceive a lack of support (Robinson and Buzzeo, 2013), and there is a need for research that explores this dichotomy, examining the relationship between the new graduates and the wider workplace.

This study aims to understand how recently graduated small animal veterinary surgeons engage in and experience reflective activity. However, there is first a need to explore current understandings of what it means to reflect as part of professional practice. The next section explores current understandings of “reflection” in healthcare settings. Authors commonly cited as laying the foundations for the emergence of reflection within healthcare education are introduced; theoretical perspectives are discussed

further in section 3.5. Drawing on empirical and theoretical research, it is argued that viewing reflective activity as purposeful and collective, whilst still privileging the individual's experience, has the potential to yield valuable insights into the challenges experienced by veterinary graduates during their PDP.

### *2.3 Understanding “reflection” in healthcare education*

Since the mid-1980s, concepts of “reflection” and “reflective practice” have been part of the discourse in professions such as teacher education (McArdle and Coutts, 2010, Hatton and Smith, 1995, Postholm, 2008, Beauchamp, 2015), nursing (Wong et al., 1995, Richardson and Maltby, 1995, Clarke, 1986, Powell, 1989), medicine (Mann et al., 2009, Ng et al., 2015) and more generally in the context of workplace learning (Eraut, 1995, Fenwick, 2008a) and higher education (Ryan, 2013, Barton and Ryan, 2014, Bleakley, 1999). Discussion of reflection has recently become prominent in the UK veterinary profession, through inclusion as a Day One Competence (RCVS, 2014), the launch of the PDP in 2007 (RCVS, 2012b), introduction of reflective portfolios in undergraduate and post-graduate training (RCVS, 2012a, Mossop and Senior, 2008), and ongoing review of the Continuing Professional Development policy (RCVS, 2016a).

However, despite widespread use of the terms “reflection” and “reflective practice”, there is little consensus over their definition. Several authors (Bleakley, 1999, Ng et al., 2015) have commented that widespread use of the term “reflection” means that it has become a “catch-all title for an ill-defined purpose” (Bleakley, 1999, p. 317). A recent review of reflection in teacher education (Beauchamp, 2015) has highlighted other persistent and emerging issues in the literature relating to reflection, for example the varied definitions and often lack of epistemological underpinnings, narrow or overly structured approaches to reflective practice, lack of understanding of workplace contexts, and lack of attention to identity development and aspects of affect.

In this section some key authors whose work underpins current concepts of reflection in healthcare education will be introduced. Definitions of reflection used in healthcare will be reviewed, before discussion of research relating to two key challenges that emerge from the literature: whether reflection should be considered as an individual or social activity, and whether reflective activity should be viewed as a tool for assessment (Ng et al., 2015).



### 2.3.1 Key contributors

Whilst it has been suggested (Boud et al., 1985) that notions of reflection in learning can be traced back to Aristotle's concepts of practical judgements (practical wisdom, or *phronesis*) in his *Ethics* (Aristotle, 1999), most contemporary literature relating to reflection draws on the work of a few key authors including John Dewey, Donald Schön and David Boud, introduced below. The significance of the work of Dewey and Boud in relation to the current study is considered in more detail in section 3.5.

Dewey considered reflection to be a complex process from which an individual recognises a problem and identifies a solution. He defined reflective thought as:

Active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it, and the further conclusions to which it tends...(Dewey, 1910/2012, p. 6)

Dewey linked reflective thought to the learning that arises from experience, foregrounding the history of the individual, continuity of experience, and interaction with others (Dewey, 1938/1997). Dewey's understanding of the process of reflection, broken down into six clearly defined steps, can be considered to mirror the empirical research process, perhaps explaining why Dewey's work has found resonance in the positivist<sup>2</sup> traditions of healthcare (Macintosh, 1998, Rodgers, 2002).

Schön, building on Dewey's work, viewed reflection as not just a mental process, but embedded in practice and action. Schön introduced the concept of the "Reflective Practitioner" (Schön, 1983, Schön, 1987) through consideration of reflection-in (during), and -on (following) action. In contrast to Dewey, Schön steered the reader away from conceptions of reflection embedded in technical rationality and logical problem solving: a challenging shift for professionals whose training emphasises empirical scientific processes. In Schön's view, dealing with instability, complexity, uniqueness, uncertainty and value conflict represents the *art* of practice; something that is known and teachable, but difficult to define. For professionals trained and working within a positivist

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<sup>2</sup> "Positivism" (or "empiricism") refers to the epistemology underpinning most contemporary scientific research. It is considered possible to establish objective facts, independent of the values of the researcher, through a careful and logical approach to hypothesis, experiment, measurement and analysis (Usher, 1996)

paradigm, “uncertainty is a threat; its admission a sign of weakness” (Schön, 1983, p. 69). Schön is criticised for inadequate consideration of the dynamic, ever changing nature of workplace contexts (Bleakley, 2006); for an overly individualistic and technical account of reflection, with too little reference to aspects of agency and motivation; and lack of attention to the social discourse of shared practice (McArdle and Coutts, 2010, Kotzee, 2012). His approach emphasises the novice professional creating an understanding of their own practice, but there is little emphasis on the influence of culturally-shared understanding and practices, or on practical outcomes.

In contrast to this, Boud and his colleagues, recognising a need to clarify the idea of reflection in learning, and emphasising a concept of reflection as collaborative activity, suggested that when we think of reflection we think of a range of activities:

..we may imagine thinking quietly, mulling over events in our mind or making sense of experiences we have had. Groups of people may also come to mind: engaged in reflection either as meditation or prayer or actively discussing recent events and issues. Comparing notes, roundtable discussions, carrying out a post-mortem (metaphorically speaking), having an informal group discussion are all used to describe activities with which we are familiar and which have some relation to “reflection”...Reflection is not a single faceted concept...but a generic term which acts as a shorthand description for a number of important ideas and activities. (Boud et al., 1985, p. 8)

Boud and colleagues (1985) recognised the importance of reflection in preparation for, during, and following an experience, and related these activities to Dewey’s concept of conscious reflection. Three key points emerged: learners have control of, and must take responsibility for, their own reflective learning; reflection is purposive and goal-directed; and the affective dimension plays a major role in how the learner engages in and utilises reflection, both positively and negatively. This latter point, whilst acknowledged by Dewey, is key to Boud and colleagues’ understanding of reflection as:

...a generic term for those intellectual and affective activities in which individuals engage to explore their experiences in order to lead to a new understanding and appreciations. It may take place in isolation or in association with others. It can be done well or badly, successfully or unsuccessfully. (Boud et al., 1985, p. 19)

### 2.3.2 Defining “reflection” in healthcare settings

In view of the challenges that varied definitions bring to the research and practice of reflective activity, several authors have attempted to define “reflection” within healthcare contexts (Mann et al., 2009, Nguyen et al., 2014, Sandars, 2009, Wald, 2015b). None of these definitions is developed from a defined epistemological stance, perhaps symptomatic of the often limited attention paid to philosophical perspectives in healthcare education research (Bunniss and Kelly, 2010, Rees and Monrouxe, 2010, Scholz et al., 2013). Reflection has become a “fuzzy concept” (Collin et al., 2013, p. 109) in a range of professional contexts. There appears to be an overarching approach to reflection as an introspective, individual process, critiqued by Bleakley as representing an “internal act of thinking about thinking” (Bleakley, 1999, p. 320), rather than a way of looking out at the world and encouraging a noticing and awareness of the impact of our participation in that world. It may be that appropriation of Schön’s concept of reflective practice has resulted in an overly individualistic approach to the process of reflection (Kotzee, 2012).

Mann and colleagues (Mann et al., 2009) concluded that existing definitions “emphasize purposeful critical analysis of knowledge and experience, in order to achieve deeper meaning and understanding” (Mann et al., 2009, p. 597). Another systematic review proposed that:

Reflection is the process of engaging the self in attentive, critical, exploratory and iterative interactions with one’s thoughts and actions, and their underlying conceptual frame, with a view to changing them and with a view on the change itself. (Nguyen et al., 2014, P. 1182)

Nguyen and colleagues’ definition again reflects an understanding of reflection as an individual activity, with no consideration of sociocultural contexts. It also risks creating an increasingly formulaic approach to an individualistic process, which may constrain rather than empower the learner. Imposing a fixed framework and a reliance on observable, measurable outcomes neglects both individual motivation and agency (Wass and Harrison, 2014, Sandars, 2009).

A broader definition of reflection emphasised the importance of understanding of not only the self but also the wider context and purpose of reflective activity (Sandars,

2009). Sandars' definition was extended by Wald (2015), highlighting the importance of reflection-on-being and connecting with feelings, as triggers for reflective activity (Murdoch-Eaton and Sandars, 2014, Sandars, 2009):

Reflection is a metacognitive process **including connecting with feelings** that occurs before, during and after situations with the purpose of developing greater **awareness and** understanding of both the self, **other**, and the situation so that future encounters with the situation **including ways of being, relating and doing** are informed from previous encounters. (Wald, 2015b, p. 697, emphasis in original)

From a sociocultural perspective, Bleakley has extended Schön's concepts of reflection to include "reflection-as-action" and holistic reflexivity (Bleakley, 1999). Reflection-as-action is an effect of active immersion in the world; the focus for reflection is the total event or activity, rather than the individual; the context itself moulds the act. The concept of holistic reflexivity provides a reflective role for "swimming with the stream of consciousness" (Bleakley, 1999, p. 326), an aesthetic monitoring and reflexive awareness of our thoughts. Reflexivity implies, and perhaps necessitates, individuals' engagement with a concept of reflection-as-action, as a way of being; perhaps reflexivity is an aspiration, a way of being that can evolve through engagement in reflective activity (Finlay and Gough, 2003)<sup>3</sup>.

Despite Bleakley's call for a more holistic approach to reflection, two decades later there is ongoing critique of the drift away from the theoretical origins of reflection in healthcare, highlighting the potential value of research framed around reflection as an epistemology of practice (Ng et al., 2015). Reflective practice can be a *way of being* rather than just a tool or technique (Ng et al., 2015); reflection is key to personal identity formation and resilience (Wald, 2015b).

If we are to consider a more holistic concept of reflection, there is a need for research that helps us understand what types of reflective actions are valued and engaged in by

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<sup>3</sup> I debated whether to use "reflexivity" throughout this thesis, in place of reflective activity. However, individuals can take part in reflective activity without embracing or embodying a holistic concept of reflexivity; for this reason, and in line with the traditions of cultural-historical activity theory, I chose to use the phrase "reflective activity".

individuals in social settings: reflective talk, thought and writing may all play different roles in different settings. Such research, as undertaken in this study, has the potential to promote workplace and professional practices that could underpin the development of reflexivity as a way-of-being for both individuals and communities. Research is needed that moves beyond the current, utilitarian approach to reflection:

...reflective practice demands a space to broaden understanding of reflection at an epistemological and theoretical level. We suggest that it is this type of engagement with reflection that will serve the field best at this point in time: understanding inquiry and experimentation within practice as opportunities for the generation of knowledge, and as avenues for navigating uncertainty and complexity. (Ng et al., 2015, p. 464)

Two main themes emerge from review of the literature relating to reflection in healthcare education (Ng et al., 2015, Fragkos, 2016): a focus on reflection as solitary, individual reflective rituals used to evidence competence, and an emphasis on reflection itself as a competency that can be taught and assessed. These themes are increasingly removed from the concepts of reflection articulated by authors such as Dewey, Schön and Boud (Ng et al., 2015). In the next sections, each of these themes is discussed, arguing that research is needed that considers both the social aspects of reflective activity, and the impact of formal assessment processes governing reflective activity. Within each section, I will draw on examples of research from medical and veterinary contexts.

### 2.3.3 Reflection as individual or social activity

Within healthcare, the focus in the literature is very much on the individual as they develop their skills, for example in diagnostic competence (Mamede et al., 2008, Mamede et al., 2012, Ibiapina et al., 2014, Mamede et al., 2014, Koole et al., 2012), ethics (Boenink et al., 2004) and communication skills (Watling and Brown, 2007, Adams et al., 2006). Various tools are used to frame reflective activity and support the learning process, such as written cases or vignettes (Boenink et al., 2004, Mamede et al., 2014) and videos of cases (Koole et al., 2012). The learners are usually required to undertake written reflective tasks, with widespread use of portfolios (Chaffey et al., 2012, Driessen, 2017). Traditionally, there is a focus on reflection as a solitary activity, with much literature discussing “self-reflection” and “self-assessment” (for example, Carr and

Johnson, 2013, Stephens et al., 2012), and a perceived trinity of the competent individual as one who can self-reflect, self-assess and self-regulate (Hodges, 2004, Hodges, 2006),

Despite this emphasis on reflection as a solitary activity, it is well established that people are generally poor at judging their own skill levels (Kustritz et al., 2011), highlighting the need for interaction with others. Discussion of the relative benefits of individual and collective reflection has emerged, emphasising the need for supportive, trusting relationships amongst colleagues (Beauchamp, 2015, Collin and Karsenti, 2011). The importance of interaction with more experienced others through feedback and discussion has been highlighted (Sargeant et al., 2009, Gonzalo et al., 2014, Okubo et al., 2014), with feedback rendered meaningless if the learner is not motivated and supported to engage in and reflect on feedback discussions. There is also an emerging literature on the role of reflective talk in the context of coaching and mentoring in post-graduate healthcare settings demonstrating that one-to-one discussions are valued in terms of their impact on, for example, confidence, wellbeing, knowledge and job satisfaction (Launer, 2014). These studies highlight the importance of considering reflective activity as a social endeavour to support development of clinical and professional skills, understanding individual, relational, contextual and cultural factors to develop an effective professional learning culture in the workplace.

Some studies use group discussion to support the individual's learning process, particularly in the context of learning communication skills (Hill and Hamilton, 2013, Watling and Brown, 2007, Mossop et al., 2015), and identity development (Clandinin et al., 2011, Wald, 2015a). Group discussion has been acknowledged as a valuable aid to supporting reflective skills, for example as students reflect on affective challenges (de Vries-Erich et al., 2016, Eichbaum, 2014), and there are many examples of the benefits that subsequent discussion adds to reflective writing tasks (Oto et al., 2017, Wald et al., 2009, Sukhato et al., 2016, Tonni et al., 2016, Driessen, 2017). Several studies highlight individuals' preferences for talking and thinking over writing as reflective activity (Shaughnessy and Duggan, 2013, Reed, 2015, Curtis et al., 2016, Curtis et al., 2017). Even when learners recognise the value of reflective writing, they may be unlikely to continue to engage in reflective writing if there is no formal requirement to do so (Silva-Fletcher et al., 2014, Boud et al., 2006).

Several studies have attempted to explore group interactions during reflective discussion, demonstrating that whilst discussions may initially focus on critical incidents or challenging cases, the learning often expands to encompass issues of professionalism (for example, Tigelaar et al., 2008, Koole et al., 2016) and more concrete plans for change (Boerboom et al., 2011). Recent work has used conversation analysis to understand how collaborative reflective discussions are structured (Veen and de la Croix, 2016, Veen and de la Croix, 2017), highlighting discrepancies between frequently taught models, such as Kolb's experiential learning cycle (Kolb and Fry, 1975) or Gibb's reflective cycle (Gibbs, 1988), and the realities of the workplace or classroom.

Finding time for collective reflective activity is recognised as a challenge in a range of professional settings including teaching (Stoll et al., 2006), medicine (George et al., 2013, Driessen et al., 2008), and physiotherapy (Roche and Coote, 2008). It is a challenge to identify working practices that create time and space for reflective activity, taking into account physical, organisational and affective contextual needs (van der Zwet et al., 2011, Kumagai and Naidu, 2015). In response, online platforms have been explored to promote interactive reflective activity, enabling groups of peers to share and respond to reflective writing (Bernard et al., 2014, Makoul et al., 2010, Könings et al., 2016). Whilst these tools are perceived as easy to use, secure, and helpful for identifying learning moments, there is little data available regarding their long-term value or effectiveness.

Two recent studies explored group reflective activities within the veterinary workplace context. Mastenbroek and others evaluated the impact of a modular, one-year programme for recent Dutch veterinary graduates designed to broaden and enhance their personal resources such as self-esteem, self-efficacy, optimism and a pro-active attitude (Mastenbroek et al., 2015). The programme format included modules with an emphasis on reflection and experimenting with new behaviour, meeting every six weeks for ten months with peer-coaching a key part of each session. Quantitative analysis of self-report survey data indicated an increase in proactive behaviour, self-efficacy and reflective behaviour; qualitative analysis indicated that the reflective process supported the development of self-acceptance, self-esteem, awareness of own influence, and responsibility, leading to an increase in job resources and a reduction in perceived job demands. Demonstrating the value of interaction with others during reflective activities, guided reflection with peers helped participants realise that:

...they were not alone in their uncertainty and in doubts concerning their abilities or learning capacities. This allowed a different perspective on the personal situation. They became aware of their own thoughts, the areas of tension, and of having a choice whether or not to allow limiting factors to determine their behaviour. By analysing their own thoughts they realized that these thoughts caused a great deal of stress and they then learned to replace these by more constructive thoughts. (Mastenbroek et al., 2015, p. 315-316)

The interactive nature of the reflective activity supported the development of personal resources, which in turn led to an improved sense of wellbeing. However the formal nature of the programme, with inherent resource implications, raises the issue of how similar opportunities for peer support and discussion can be facilitated within the financial and practical constraints of the workplace.

Van Woerkom and others have explored the application of Critically Reflective Work Behaviour (Van Woerkom and Croon, 2008) to veterinary practice in the Netherlands (de Groot et al., 2014, de Groot et al., 2013, de Groot et al., 2012), studying the behaviours and dialogue of study groups, one of which comprised recent graduates. Through content analysis of meeting transcripts, four modes of communication were recognised in the learning communities: interactive (the highest level, whereby members interacted with one another, elaborating, contradicting, or asking questions); individual (an aspect was raised from a learning perspective, but not discussed); non-reflective (an aspect was mentioned but no attempt made to learn from it); and restricted (whereby members were cut short by others or restricted their own comments). The recent graduates, at the first meeting, frequently discussed mistakes they had made (more so than the other, more experienced, groups), although the interaction centred on consolation (de Groot et al., 2014). Over subsequent meetings, this group showed more evidence of reflection on their mistakes, related to a growing sense of trust amongst the group (de Groot et al., 2012), highlighting the importance of a trusting relationship in reflective discussions.

The literature highlights the benefits of collaborative reflective activity, through both one-to-one and group discussions, leading to more positive engagement with reflective activity but constrained by the demands of the workplace and the need for trusting relationships. There is a need to understand whether reflective activity, as understood and enacted by recent veterinary graduates, is engaged with as a primarily individual or



collective activity, and a need to explore the factors that facilitate or constrain collaborative reflective activities within veterinary workplaces. The next section explores how conceptualising reflection as a tool and competency can challenge engagement with reflective activity.

#### 2.3.4 Reflection as a tool and a competency

The emergence of competency-based professional curricula (see 1.1.1) has led to appropriation of a technical-rational approach to reflection, as a set of tools and competences that can be taught and assessed, with a risk of overlooking the importance of values, subjective feelings, and the critical transformative potential of reflection (Bleakley, 1999, Ng et al., 2015). Reflection is often viewed as a skill to be developed: novices are provided with tools to support problem-solving with an expectation that they will develop more critical reflective skills as they gain expertise (Ecclestone, 1996).

There is a wealth of literature exploring different methods for assessing reflection, with widespread use of reflective portfolios in both undergraduate and post-graduate medical education (Buckley et al., 2009, Tochel et al., 2009, Driessen, 2017). Several authors have focused on developing schema for assessing different levels of reflection (Hatton and Smith, 1995, Mezirow, 1991, Moon, 2004). There are many examples of reflective writing being graded according to established scales of depth of reflection, all of which assume an individualistic approach to reflection (Wald et al., 2012, Koole et al., 2012, Roberts and Stark, 2008, Aukes et al., 2007, Hatton and Smith, 1995, Korthagen and Vasalos, 2005), reinforcing a concept of reflection as tool.

In the medical and dental professions in the UK, portfolios are widely used to evidence both post-graduate training, and ongoing professional learning (Goodyear et al., 2013, Tonni and Oliver, 2013, Tonni et al., 2016, McNeill et al., 2010, Bodgener et al., 2017). There is an undercurrent of dissatisfaction with the current portfolio system amongst UK general medical practitioners (Curtis et al., 2016, Curtis et al., 2017). In a survey of general medical practitioners and trainees, over 70% of the 1005 survey respondents noted the time-consuming nature of recording written reflection, and 84% found verbal discussion with a colleague more useful than written reflection (Curtis et al., 2017). The survey may have been biased towards those least satisfied with the written reflections, but the sense of frustration and possible impact on recruitment and retention must be acknowledged (Bodgener et al., 2017).

Reflective portfolios are increasingly used in UK veterinary undergraduate curricula to support students to develop skills in reflection (Mossop and Senior, 2008, Warman et al., 2014). Evaluation of the use of reflective logbooks during practice placements (Dale et al., 2013) showed that, although the logbook was perceived to help students identify areas for improvement and structure their learning, there was dissatisfaction with the time required for completion and discussion, the repetitive nature of the log itself, and a lack of understanding by placement providers. These studies highlight debates around whether reflective portfolios should be formally assessed, the challenges of encouraging high-achieving students to write self-critically, the importance of effective training for staff and students, and the time-consuming nature of providing adequate coaching and support for students.

In post-graduate veterinary education in the UK, beyond the PDP, written reflection in the form of learning summaries is a requirement of the RCVS Certificate in Advanced Veterinary Practice, an optional qualification undertaken by veterinary surgeons working in clinical practice. Content analysis of 12 such learning summaries (May and Kinnison, 2015) showed evidence (limited by the nature of self-report) of behaviour change for the individual (both clinical practice and approach to learning), and impact and benefit for the practice (i.e. the business) and the patient/owner. For participants, reflective writing was a very unfamiliar, and often uncomfortable, experience, highlighting the challenges that healthcare professionals trained in a positivist paradigm can experience when asked to reflect on their activity, perpetuated by, until recently, a lack of training in reflective activity in undergraduate curricula.

There is a sense of unease around the impact of excessive formalisation and recording of the often informal, personal process of much reflective activity (Wear et al., 2012, Ng et al., 2015, Eraut, 2004b):

Most reflection, however, is a solitary affair about which little is known. The timing and location of such reflection is not often conducive to self-recording and, if it were, such recording would probably change the nature of the reflection...the prospect of recording it is rarely welcome. (Eraut, 2004b, p. 50)

Portfolios often require learners to share reflective writing with their assessor. It has been debated whether the sharing of written reflection with an (often unknown) other

in a position of authority is ethical or appropriate (Ghaye, 2007, Cotton, 2001, Shaughnessy et al., 2017). It is widely accepted that writing for this other person will change the nature of the writing (Murdoch-Eaton and Sandars, 2014, Vivekananda-Schmidt et al., 2011), turning it into an instrumental ritual rather than a transformative opportunity for learning (Hays and Gay, 2011, Goodyear et al., 2013, Silva-Fletcher et al., 2014). When reflective activity becomes social, through talk or writing, but in a formal, required or assessed context, there is a risk of constructing the student as self-assessor and the teacher as confessor (Hodges, 2006, Macfarlane and Gurlay, 2009, Ross, 2014, Bleakley, 2000, Macfarlane, 2015); learners are likely to become strategic, aware of their audience and the associated expectations, and may be more likely to dwell on their weaknesses rather than celebrate their strengths (Hargreaves, 2010). There is a risk of reflection becoming a “language-game” (Dohn, 2011, p. 683), detached from the realities of practice, with individuals developing high levels of competence at talking or writing about their actions, without developing practical and professional skills. Learners might consider that “the appearance of complying with requirements to reflect becomes more important than the intended educational purpose” (Murdoch-Eaton and Sandars, 2014, p. 279).

These studies suggest that formalisation of reflective activity, particularly the use of portfolios, cannot be assumed to lead to the outcomes desired by regulatory bodies or practitioners. A focus on assessed writing privileges individual rather than collective approaches, and overlooks much of the often preferred, informal, interactional nature of reflective discussion, within the constraints of the workplace. Through formal activities, there is a risk that learners may be “playing the game”, rather than truly engaging in reflective activity. Recent reviews have highlighted the need to improve understanding of the broader experience of reflective activity, with particular attention to affective aspects, in teacher education (Hébert, 2015, Collin et al., 2013, Beauchamp, 2015) and healthcare settings (Murdoch-Eaton and Sandars, 2014). There is a need for research that steps back from understanding reflection as a tool and competence, that acknowledges both the experiences, agency and preferences of individuals, and the facilitators, constraints and tensions within workplaces that influence engagement with and outcomes of reflective activity.

## *2.4 Chapter summary*

In this chapter, the scene has been set for considering reflective activity as a situated, collective activity within the workplace, to support the development of recently qualified veterinary surgeons. In the first section it was argued that there is a need for research that considers the complex social context of the workplace without losing sight of the experiences of the individual. During the transition to practice, recent veterinary graduates, moving from the relatively protected clinical contexts of undergraduate training, are required to apply their training to the real world, taking responsibility for their own decisions whilst addressing the needs of clients, patients, employers and the RCVS, as well as their own development. It is well established that the transition to practice is a time of challenge, with many recent veterinary graduates perceiving a lack of support from their employers and colleagues, influencing their wellbeing, development and retention within the workplace. It appears clear that support from others within the workplace is essential during this transition. The RCVS, through the PDP, aims to create a structure for this support within the UK veterinary profession. However, many recent veterinary graduates perceive support to be inadequate. It is possible that the focus on reflective activity within the PDP, situated within the current discourse of reflection in healthcare education, contributes to this perceived lack of support. From the literature, it is apparent that current concepts of reflective activity in healthcare settings may constrain rather than enhance individual learning, through processes that prioritise individual rather than collective activity, and that focus on reflection as a competence and formal tool rather than a way of being. It is timely for research to focus on understandings of reflection as a socially-situated, collective activity, enacted both formally and informally within the clinical workplace, privileging both the experience of individuals and the constraints of working life. It is particularly timely for this to be undertaken within the veterinary profession, where there is much evidence of a need for better support during the transition to professional practice.

In Chapter 3, sociocultural approaches to understanding workplace learning will be considered in more depth, and the potential value of using cultural-historical activity theory to explore reflective activity during the transition to practice will be explored. Attention will be paid to privileging individuals' experience within the complex workplace environment.

## Chapter 3 A CULTURAL-HISTORICAL APPROACH TO REFLECTIVE ACTIVITY IN CLINICAL WORKPLACES

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Sociocultural theories offer ways of understanding the complexities of learning and development in the workplace. This chapter starts with an overview of sociocultural theories of workplace learning, before exploring Cultural Historical Activity Theory (CHAT) as the theoretical perspective for this study in more detail. The origins of CHAT are outlined, focusing on the significance of Marxist principles and the work of Lev Vygotsky, followed by discussion of the development of Vygotsky's theories into the present-day concepts and interpretations of CHAT. The challenges of privileging subjectivity within system-level analysis are explored. An argument is made for using a concept of "experiencing", or *perezhivanie*, to link the subject and environment, integrating activity with affect. Reflective activity, as a component of development, is conceptualised through a CHAT lens, exploring the work of key authors from a CHAT perspective. Finally, the theoretical framework for the study is explicated.

### *3.1 Sociocultural approaches to learning in the workplace*

This section explains sociocultural theories of workplace learning, introduced in Chapter 2, in more detail. Sociocultural theories such as Lave and Wenger's Situated Learning Theory, the associated theory of Communities of Practice (Lave and Wenger, 1991, Wenger, 1998), and CHAT, have shared roots in Vygotskian traditions (see 3.2). These theories foreground the social aspects of learning, extending the unit of analysis beyond the individual to the collective workplace. Learning is conceptualised as a process of participation rather than acquisition, shaped by social, cultural and organisational factors (Sfard, 1998). Bleakley (2010) summarises the value that sociocultural theories, influenced by writers such as Vygotsky (see 3.2.3) and Dewey (see 2.3.1), can bring to the study of complexity and learning in healthcare professions:

Where traditional learning theories focus upon what is learned or accumulated by an individual and how that is retained and reproduced, social learning theories focus upon processes of collaboration, means of access to distributed knowledge, how knowledge acquires legitimacy and meaning, knowledge production rather than reproduction, socialization as a process of learning and identity construction as a learning outcome. (Bleakley, 2010, p. 851)

CHAT has developed from Vygotskian roots through the work of Leont'ev (see 3.3), with a focus on the activity system as the unit of analysis. The system incorporates individuals, workplaces and wider society, with historically-derived contradictions within the system leading to development and transformation. CHAT has strengths in “establishing a bridge between theory and practice” (Sannino et al., 2009a, p. 7), enabling a bottom-up approach to understanding an activity system and foregrounding both context and the collective nature of activity. The focus on systems as historical and ever-changing helps conceptualise the dynamic nature of workplace cultures. However, for consideration of reflective activity, there is a risk that a CHAT approach privileges the collective or system over the individual. It is recognised that sociocultural theories are enhanced by consideration of subjectivity, encompassing aspects of affect as well as individuals' experience and agency (Billett, 2006, Edwards, 2005); approaches to overcoming this challenge are considered further in section 3.4.

In summary, sociocultural theories in general, and CHAT in particular, offer a way of exploring the development that happens in complex workplace contexts, understanding development as a social, relational, situated, and historically-influenced activity. There is a relative paucity of research from a sociocultural perspective in the veterinary education literature (Scholz et al., 2013); using CHAT to explore reflective activity in the veterinary workplace has the potential to uncover reasons behind some of the challenges faced by recent graduates (see 2.2). The next two sections explore the origins and development of CHAT.

### *3.2 The origins of the cultural-historical approach*

CHAT has evolved from a rich tapestry of philosophical and psychological traditions including the work of Marx, and the Soviet cultural-historical psychology of Vygotsky and Leont'ev (Engeström, 1999). In this section, the origins of the cultural-historical approach are outlined, through an understanding of the challenges of the mind-body dualism that has underpinned much of Western philosophy, the influence of Marxist principles, and the work of Lev Vygotsky.

#### *3.2.1 Mind and body*

The conceptual separation of mind (or consciousness) and body as distinct entities stems from the work of Rene Descartes (1596-1650); Descartes insisted that in terms of

thinking and development, mind and body were entirely separate and only the mind was involved in thinking. His dualist understanding continued into the early 20<sup>th</sup> century. Lev Vygotsky, a Russian psychologist and philosopher living at a time of great political and social upheaval in the early 20<sup>th</sup> Century, developed a theoretical and philosophical perspective which challenged this dualism. Vygotsky controversially argued that it was not possible to achieve a unified view of psychology without a new system of theories and concepts. There needed to be a move away from behaviourist theories, to one where development and behaviour were viewed in their historical and social contexts (Vygotsky, 1982). Vygotsky developed his unified approach based on underpinning Marxist principles, discussed in the following section.

### 3.2.2 Marxist influences

The German philosopher Karl Marx developed theories relating to society, economics and politics, forming the overarching philosophy known as Marxism. His most widely-read works are the Communist Manifesto (Marx and Engels, 1848) and Das Kapital (Marx, 1867). Much of the work of Vygotsky and subsequent contributors to the development of CHAT is underpinned by Marxist principles relating to the significance of human labour and the concept of dialectics. Marxist principles revolve around the importance of labour as the key to understanding human activity, giving meaning and purpose to our lives. Marx viewed activity as practical action, *Tätigkeit*, in which human praxis and development are coincident with changes in societal conditions (Roth, 2004):

Labour is, in the first place, a process in which both man and nature participate, and in which man of his own accord starts, regulates and controls the material reactions between himself and Nature....by thus acting on the external world and changing it, he at the same time changes his own nature. (Marx, 1867, p. 127)

Dialectical materialism is a fundamental concept of Marxist philosophy, viewing phenomena as ever changing, rooted in the materials of everyday life. Progress occurs as a result of tensions and changing needs in society (Cole and Scribner 1978, Johnston and Dornan, 2015). Transformation occurs through engagement in activity and labour, mediated by use of tools, themselves developed through cultural and historical influences.

### 3.2.3 Vygotsky and the Russian cultural-historical school

Vygotsky is the founding father of CHAT, although he died before some of his theories could be fully formulated; his students Leont'ev and Luria continued to promote and develop his work, and his theories continue to be developed and debated today.

Aspects of Vygotsky's work of most relevance to the current study include his concept of mediated activity, his developmental method, the interaction between thinking and speech, and the concept of perezhivanie. The first three aspects will be explored in the following section; perezhivanie is discussed in section 3.4.

#### 3.2.3.1 *Mediation and development of higher natural functions*

Vygotsky argued that individual mental development relies firstly on interactive, social learning, before the new idea or concept is internalised by the individual (Wertsch and Tulviste, 1992, Vygotsky, 1931). He proposed that social interactions drive the development of an individual's higher mental functions<sup>4</sup> such as thought, attention and memory, with these interactions in turn influenced by cultural and historical contexts:

Every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first between people (inter-psychological), and then inside the child (intra-psychological). This applies equally to voluntary attention, to logical memory, and to the formation of concepts. All the higher functions originate as actual relations between human individuals. (Vygotsky, 1978, p. 57)

Key to the social nature of individual development is the role of mediation through the use of culturally- and socially-derived tools, incorporating material tools, psychological tools, and indeed other human beings (Kozulin, 1998, Wells, 2007). In the development of the higher mental functions, every interaction is mediated between individuals through these tools and signs, such as language, diagrams, maps and people:

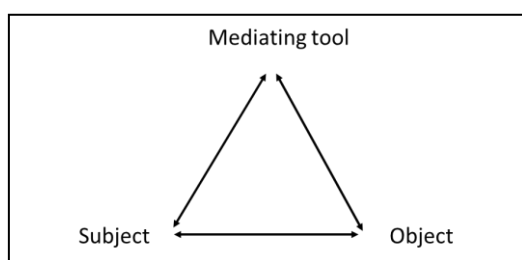
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<sup>4</sup> Vygotsky distinguished between lower, natural mental functions (such as basic perception, memory, attention and will) and the "higher", or cultural, functions (such as voluntary attention, voluntary memory, and rational, volitional, goal-directed thought). He argued that it is these socially-mediated, culturally-derived, higher mental functions that are the fundamental difference between the mental processes of humans and other animals (Kozulin, 2012, Minick, 2005)



As a logical consequence of admitting into the system of psychological categories the use of signs as being of decisive importance to the history of the development of higher mental functions, external symbolic forms of activity such as verbal communication, reading, writing, counting and drawing are also involved...We are inclined to consider them primarily as special forms of behaviour formed in the process of sociocultural development of the child and forming the external line of development of symbolic activity that exists together with the internal line represented by cultural development of such formations as practical intelligence, perception and memory. (Vygotsky, 1999, p. 40)

Vygotsky's model, with the emphasis on mediated activity, led him to develop a fundamental unit of analysis as a triad of subject, object and mediating tool (Figure 3-1). The lower, "natural" functions are represented by the line between the subject and object; the development of higher mental functions is mediated through a tool; the relation between the subject and object is linked through the tool (Cole, 1996). The bi-directionality of the arrows highlights that mediating tools emerge first in social activity with one or more of the individuals involved having only limited understanding of their meaning. With repeated interaction, understanding of the meaning of the tool becomes increasingly sophisticated and is eventually internalised by individuals: "sign meaning develops" (Wertsch, 2007, p. 186).



*Figure 3-1 A common reformulation of Vygotsky's model of the mediated act (Engeström, 2001)*

Wertsch argues that, in order to highlight the agency of individuals, the basic unit of analysis should be considered to be "individual(s)-acting-with-mediational-means" (Wertsch, 1991, p. 12), and that two types of mediation should be considered: explicit (the intentional introduction of signs or tools), and implicit (e.g. social and inner speech) (Wertsch, 2007). Reflective activity can be considered to be mediated by language, both

internally and externally, and through use of culturally-derived tools such as portfolios and frameworks; the subject may have a degree of choice relating to their engagement with these tools.

### *3.2.3.2 Developmental method and dialectics*

Rooted in Marxist principles (Fu, 1997, Daniels, 2005), dialectical materialism formed the basis for Vygotsky's "developmental method": a way of considering cultural, social, historical, behavioural and psychological aspects of human development within a unified theory. Vygotsky argued that consciousness and the development of higher psychological functions could be understood through the explanatory principles of socially-laden, meaningful activity, mediated through the use and development of tools (Kozulin, 2005). Vygotsky sought:

... a comprehensive approach that would make possible description *and* explanation of higher psychological functions in terms acceptable to natural science...He laid the foundation for a unified behavioural science (Cole and Scribner 1978, p. 5-6)

The dialectic method became central to Vygotsky's methodological approach, focusing on the developmental aspects of human activity:

To study something historically means to study it in the process of change; that is the dialectical method's basic demand. (Vygotsky, 1978, p. 64-65)

The focus on change and development aligned Vygotsky with Marx's view of human praxis as a historically concrete activity, arguing that individual mental functioning can be understood only by accounting for the social and historical character of human development (Kozulin, 2005, Wertsch and Tulviste, 1992):

According to Vygotsky, human behaviour and mind must be considered in terms of purposive and culturally meaningful actions rather than as biological adaptive reactions. (Kozulin, 2005, p. 104)

### 3.2.3.3 *Thought and speech*

With reflective activity mediated by language, incorporating both thought and speech, understanding the relationship between the two is important. Vygotsky wrote extensively about the dialectical relationships between thought and speech, conceptualising the connections in a way which may be key to understanding reflective activity:

The relation of thought to word is not a thing but a process, a continual movement back and forth from thought to word and word to thought...Thought is not merely expressed in words; it comes into existence through them. Every thought tends to connect something with something else, to establish a relation between things. Every thought moves, grows and develops, fulfils a function, solves a problem. This flow of thought occurs as an inner movement through a series of planes. (Vygotsky, 1934/2012, p231)

Vygotsky conceptualised thought as flowing through a series of planes: motivation, thought, inner speech and social (external) speech (Vygotsky, 1934/2012). Word meaning and word sense are key to this argument. The concept of word sense means that an individual's understanding of a particular word is imbued with the historical understanding and contextual situation of the individual, and is "a dynamic, fluid complex whole, which has several zones of stability" (Vygotsky, 1934/2012, p. 259). Word meaning is the most stable of these zones; it remains stable through changes in sense, representing the basic form of unity between thought and word. In thought and inner speech, word sense, affected by an individual's histories and context, predominates over word meaning, influenced by the response and perspectives of an imagined listener (self or other), in turn influenced by affect, context and experience (Wertsch, 1991, Wertsch, 2007). Explicating thought into social speech, written or verbal, is a form of semiotic mediation that requires more attention to be paid to meaning. The role of language in reflective activity is considered further in section 3.5.2.

In summary, Vygotsky and colleagues' work provides the foundation for concepts of sociocultural learning: "to understand the individual it is necessary to understand the social relations in which the individual exists" (Wertsch, 1991, p25-26). Each of the concepts outlined above supports an understanding of reflective activity as a collective, social endeavour that supports learning and development. Mediated activity and the

developmental method create a frame for understanding reflective activity as a collective activity leading to individual development through the use of culturally-derived tools. Understanding the links between thought and speech helps tease out the challenges that individuals face in engaging in different reflective actions such as thinking, talking and writing, and the different outcomes that can be associated with different actions. However, Vygotsky saw the individual as the unit of analysis, with less attention to the community or the collective. CHAT privileges mediated action and culture, historicity and context, and focuses on motive-driven social activity. The development of CHAT is discussed in more detail in the next section.

### *3.3 Cultural-historical activity theory*

CHAT is firmly founded on the work of Marx and Vygotsky. The Marxist focus on human labour underpins the CHAT principle of object-oriented practical activity; the concept of dialectics underpins an understanding that it is contradictions within a system that lead to transformative change. As a research tradition, CHAT has evolved through three distinct generations (Engeström, 2001). These will be discussed in turn, highlighting the relevance to the current study.

#### *3.3.1 First generation*

Leont'ev extended Vygotsky's concept of socially-mediated individual development (see 3.2.3) by emphasising the role of the "object" (or purpose) of practical activity, and by considering the structure of activity, with hierarchical relationships between different structural levels within the system. Each of these is discussed in turn.

The object of an activity is conceptualised as the motive, purpose or "sense-maker" of that activity, giving meaning to activity. Activities are always social in nature, even though they may be undertaken by individuals (Kaptelinin, 2005):

...in a society, humans do not simply find external conditions to which they must adapt their activity. Rather, these social conditions bear with them the motives and goals of their activity, its means and modes. In a word, society produces the activity of the individuals it forms. (Leont'ev, 1981 p. 47-48)

There are challenges to interpretation and understanding the meaning of "object" (Kaptelinin, 2005, Roth, 2014, Blackler, 2009), deriving from the translation of two

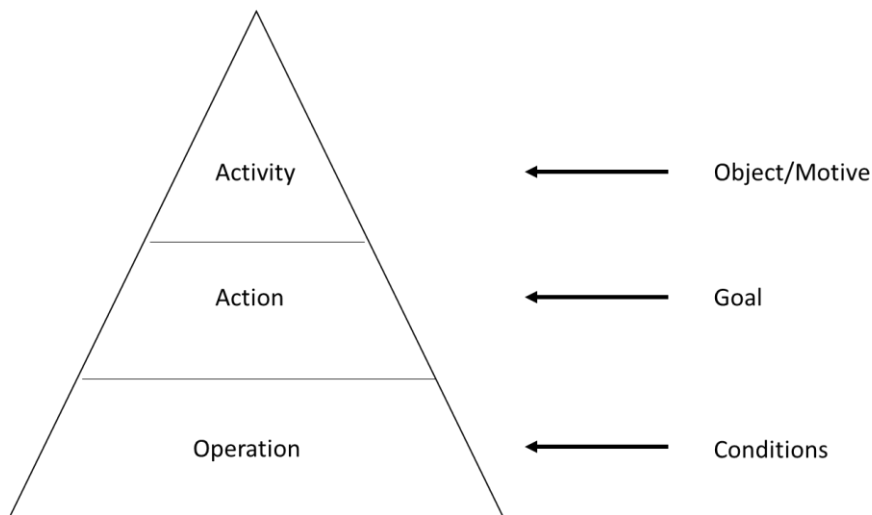
different Russian words: *ob'ekt* and *predmet*. *Ob'ekt* is the entity upon which the action of the subject acts; it might be a material entity such as a dog, or a moment in a different activity system such as patient care. On the other hand, *predmet* is the moving force (the motive) that drives *collective* activity; it may be a material product or a conceptual ideal that exists at a level of collective consciousness. In CHAT, "object" brings together both *ob'ekt* and *predmet*:

The object is more than just a goal or product. Objects are durable concerns and carriers of motives; they are generators and foci of attention, volition, effort and meaning. Through their activities people constantly change and create new objects. The new objects are often not intentional products of a single activity but unintended consequences of multiple activities. (Engeström, 2015, p. xvi)

The subject of activity is usually an individual or group of people, in the current study identified as recently qualified veterinary surgeons. The object of an activity includes not only the material purpose of the activity, but how the purpose of the activity is perceived by the subject: the image or reflection of the object (Roth, 2004, van Oers, 1998). The object relates to both the purpose of a collective activity, and the motives of individuals within the system (Miettinen, 2005). The relationship between the subject and object is dialectical; the object of activity

...is twofold: first, in its independent existence as subordinating to itself and transforming the activity of the subject; second, as an image of the object, as a product of its property of psychological reflection that is realised as an activity of the subject (Leont'ev, 1978, p. 52)

Acknowledging the difference between individual actions and collective activities, Leont'ev described three hierarchical layers of an activity system (Figure 3-2).



*Figure 3-2 The hierarchical structure of activity (Daniels, 2016, p. 87)*

These hierarchical layers within the structure of activity provide a framework for analysing the multi-layered structure of activities; each level contributes substantively to the activity, and the system cannot be represented by any one of the levels alone.

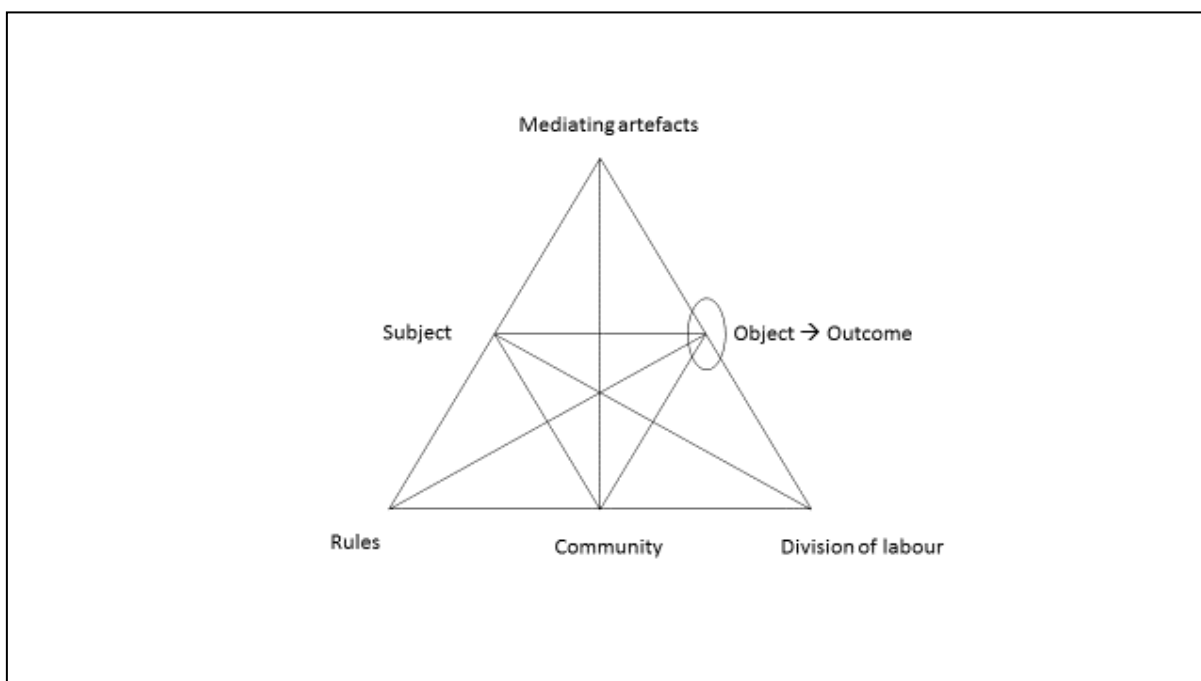
There is interaction between levels, and continuous transformation from one level to another. The overarching *activity* or purpose of any collective societal endeavour is achieved by individuals working to specific, conscious, and potentially varied *actions* and goals, which are achieved through automated, routine *operations* (Leont'ev, 1981).

Actions and operations have clear-cut beginnings and ends, whereas activity is both historical and cyclical (Cole, 1996). Activity can be considered as a cluster of integrated, goal-driven actions; activity is a product of culture and open to change. An action is the individual moment within an activity, manifested in one person, at one place, at one time; it is here that development primarily happens (van Oers, 1998) and it is this level that is depicted in Vygotsky's model of the mediated act (Figure 3-1) (Engeström, 1999).

Critics of Leont'ev have suggested that in privileging activity as the unit of analysis, he lost sight of some of Vygotsky's insights into semiotic mediation (Wertsch, 1991); others argue that Leont'ev embraced mediation with an emphasis on communication and language as inherent aspect of object-related activity (Daniels, 2016, Engeström, 1999). Regardless, whilst Leont'ev emphasised that activity is how we orient ourselves in the world, his work remained focused on the individual rather than the collective as the unit of analysis. The next section discusses how, in second generation CHAT, a framework was developed that enabled the collective activity system to be explored as the unit of analysis.

### 3.3.2 Second generation

Further expanding the understanding of activity, Engeström viewed collective activity as the unit of analysis, developing a comprehensive framework for investigating social, communal activities, highlighting the underpinning influences of context and relationships within the system (Engeström, 2015, Engeström, 1987). Expanding the unit of analysis from a focus on the individual to the system of production enables a more complex, historical, situated understanding of human activity. Engeström's triangle heuristic (Figure 3-3) emphasises the relationships between the subject, object and mediating tools, and helps the researcher analyse how these interact with the rules, community and division of labour of the wider activity system. Rules relates to the formal and informal, explicit and tacit regulations and norms that govern human activity, for example the requirements of the PDP as outlined by the RCVS, as well as local workplace policies. Communities relates to the people involved within the activity system, such as workplace colleagues. Division of labour enables consideration of the different roles undertaken by people within the system, and any influence of power and hierarchy on the activity. The activity system as delineated in the current study is presented in Chapter 5 (see Figure 5-1, p. 90 and Figure 5-2, p. 93).



*Figure 3-3 Second generation activity theory model: the structure of a human activity system (Engeström, 1987, p. 78)*

The triangle model facilitates understanding of inter-relationships between subject, object, and tools in the wider context of collective activity. It encourages investigation of tensions between different components of the triangle and the impact on object and outcomes of activity. However, there is a danger that the heuristic is interpreted as a static representation, underplaying the inherently dynamic nature of an activity system, and limiting the attention paid to the cultural and historical development of the system. In order to overcome this potential limitation, attention must be paid to three key features of activity theory (Roth, 2004): activity as Marx's notion of *Tätigkeit*; dialectical relationships; and contradictions. Each is discussed below.

Firstly, activity is understood as Marx's notion of *Tätigkeit* (practical action), in which changes in societal conditions drive human praxis and development; practical actions bring about changes in the entire system (Roth, 2004) (see 3.2.3.2 ). For example, reflective activity can be considered to have emerged from the social imaginary of lifelong learning; challenges identified in the system of reflective activity as experienced in everyday life have the potential to drive change in the subsequent conceptualisation and enactment of, and engagement in, reflection as a practical activity.

Secondly, dialectical relationships, defined as a relationship "where one concept presupposes the other, they both determine and oppose each other" (Timmis, 2014, p. 289) are inherent. For example, there is a dialectical relationship between the subject and object. Production within the system can be considered as a dialectical entity and driver of change in social processes:

...the individual not only produces outcomes, which are distributed, exchanged, and consumed, but also, in the same process, produces and reproduces him-or herself as a member of the community. (Roth, 2004, p. 4)

Thirdly, internal contradictions that are integral to human activity play a key role in the activity system. Engeström defines contradictions as "historically evolving tensions that can be detected and dealt with in real activity systems " (Engeström and Sannino, 2010, p. 4). Contradictions are "the engine of change and development in an activity system as well as a source of conflict and stress" (Cole et al., 1997, p. 4). For example, given the time constraints of clinical workplaces, if access to more experienced colleagues (as a resource for mediating reflective discussion) is limited by the structure of staff rotas



(division of labour), conflict will be experienced by those engaging in reflective activity. At a more fundamental level, there is a contradiction between supporting individuals' development within a commercial clinical environment, i.e. a contradiction between individual and societal production within the system. The contradictions may mean that the actions considered possible by the individual are viewed (or internalised) as those facilitated by the conditions of society (Engeström, 1987).

Engeström's key argument is that contradictions drive development within the context of an activity system. However, most human activity takes place within a potentially complex network of adjacent and interacting activity systems, with individuals negotiating diverse cultural conditions and perspectives as they work across and between systems (Engeström, 1995). Through the still-evolving third generation of CHAT, explored further in the following section, Engeström seeks to extend analysis to include interacting activity systems, with an increased focus on the influence of different perspectives (multivoicedness) and historicity.

### 3.3.3 Third generation

The third generation of CHAT, as proposed by Engeström, seeks to develop conceptual tools that encourage understanding of dialogue, multiple perspectives, and networks of interacting activity systems, with diverse cultural traditions (Engeström, 1995, Engeström, 2001). Engeström has summarised the concepts of third generation activity theory using five key principles (Engeström, 2001): a collective, tool-mediated, object-oriented activity system as the prime unit of analysis (situated within a wider network); multivoicedness; historicity; contradictions and dialectics as sources of change and development; and the possibility of expansive transformations. The structure of the *activity system* and *dialectics* have been discussed above; the other three principles are discussed below.

Attention to *multivoicedness* within activity theory allows consideration of multiple points of view and traditions of diverse individuals and communities; the division of labour within a system means that participants have different positions and perspectives as well as their own histories, requiring both translation and negotiation. Making explicit the voices of the RCVS, employers and the public, and the relationships between participants and their colleagues, is likely to enhance understanding of reflective activity.

*Historicity* is integral to studying the process of change and development within sociocultural activity systems (Scribner, 1985, Langemeyer and Nissen, 2005):

To study something historically means to study it in the process of change; that is the dialectical method's basic demand. (Vygotsky, 1978, p. 64-65)

Activity systems and their components develop and change over lengthy periods of time; similarly, workplaces and individuals within a system have their own unique histories and cultural traditions which impact on the wider system. As outlined in Chapter 1, concepts of reflective activity have developed from evolving discourses of lifelong learning and professional accountability in Western societies, with reflective activity within the veterinary profession poorly understood. Understanding history is important for understanding how, for example, tools such as the Professional Development Record have come to take their current form, and for shedding light on contradictions and developments within systems.

*Expansive learning* or expansive transformation of the system explores how the contradictions within a system can lead to individual participants moving away from social norms, escalating the initial deviation into a collective, transformative movement of change, leading to a reconceptualization of the motive of the activity (Engeström, 2001). Expansive development can also be considered at the level of the individual, as they develop as a result of conflict experienced within the system.

CHAT has the potential to provide a perspective on reflective activity that helps understand how contradictions drive individual and collective development, whilst understanding how relationships, working practices, tools and rules influence reflective actions and activities. However CHAT, with its focus on systems and collective activity, can risk privileging situational determinism at the expense of individual agency (Edwards, 2009, Edwards, 2005, Blunden, 2007, Billett, 2006, Roth, 2007b), and can be inadequate to fully explain individual development (Jóhannsdóttir and Roth, 2014). The next section explores how subjectivity can be foregrounded within CHAT.

### 3.4 *Foregrounding subjectivity within CHAT*

An object-oriented activity system comprises individuals undertaking goal-oriented actions, in the social situation, operating at any time under a unique set of conditions.

Taking a dialectic approach to individual and collective development:

...individuals learn through the production of socio-material resources...expansive learning in individuals is co-constitutive of learning in organizations and decreasing interest in individual learning constitutes decreased levels of action possibilities for the collective (Lee and Roth, 2007, p. 92).

Each subject brings to the system their own “subjectivity”, a term which is challenging to define, yet central to understanding the “relations between individuals, their work, and their learning for work” (Billett, 2010, p. 1). In this study, subjectivity is conceptualised through the Vygotskian concept of *perezhivanie*, as a means of understanding individual development within the social context (Vygotsky, 1994, Jóhannsdóttir and Roth, 2014, Mahn and John-Steiner, 2002). The next section explores the concept of *perezhivanie* and how it can be used to understand reflective activity.

#### 3.4.1 *Perezhivanie: linking subject and environment through “experiencing”*

In the last year of his life, Vygotsky developed the concept of *perezhivanie* as a way of integrating thought and affect, exploring how affective dimensions of human experience influence, and are influenced by, collaborative learning (Mahn and John-Steiner, 2002, Vygotsky, 1934/2012). *Perezhivanie* is often translated as “emotional experience” or “lived experience” (Mahn and John-Steiner, 2002), or simply as “experiencing” (Jóhannsdóttir and Roth, 2014). In the current study, exploring *perezhivanie* as “experiencing” enables exploration of the interaction between affect and reflective activity. *Perezhivanie* is dynamic and socially- and culturally-mediated; the subject is an individual with capacity for experiencing and agency, within the constraints of the wider system.

Focusing on experience has resonance with both Dewey and Boud’s conceptual understandings of reflective activity (see 2.3.1) (Dewey, 1910/2012, Boud et al., 1985, Dewey, 1938/1997):

...it is not possible to divide in a vital experience the practical, emotional, and intellectual from one another and to set the properties of one over against the characteristics of the other (Dewey, 1934/2008, p. 61; cited by Jóhannsdóttir and Roth, 2014)

An individual's perezhivanie is the sum of their previous lived experiences, a result of the relationship between the individual, their personality, and the environment. Different individuals will interpret and internalise meanings from the same situation in different ways (Mahn and John-Steiner, 2002). Perezhivanie can help understand participants' appropriation of opportunities afforded by social interaction, and ensures that the researcher considers the "person-in-environment" (Jóhannsdóttir and Roth, 2014, p. 66), when seeking to understand experience:

So, in an emotional experience (perezhivanie), we are always dealing with an indivisible unity of personal characteristics and situational characteristics, which are represented in the emotional experience (perezhivanie) (Vygotsky, 1994, p. 342)

Consideration of affect is central to perezhivanie. The next section will explore what is meant by "affect" from a cultural-historical perspective, and the interactions between affect and activity.

### 3.4.2 Perezhivanie: integrating affect with activity

#### 3.4.2.1 *What is affect?*

The terminology around affect, emotions and feelings can be confusing; many authors use the terms interchangeably. Spinoza, an early critic of Descartes' mind-body dualism, used "affect" as a holistic concept to describe the human capacity to respond to and be affected by objects and events (Vadeboncoeur and Collie, 2013). Four components of affect are described: appraisal, physiological responses, behavioural expressions and, of most relevance to the current study, subjective feelings (Holodynski, 2013). Subjective feelings are accessible only to the individual him/herself, and are the result of perception of the bodily experiences, and the socio- and culturally-derived words and meaning attributed to these experiences (Magiolino and Smoka, 2013, Ratner, 2000). Feelings, behavioural expression and words mediate interaction through socially-shared understandings of meaning:

...subjective feelings...are the subject of cultural historical influences that create or convert “raw” biological sensations into culturally mediated feelings, to which meanings are assigned by speech signs and that allow a person not only to become aware of his or her emotions, but also to regulate and control his or her emotional reactions. (Holodynski and Seeger, 2013, p. 292)

Feelings are momentary and subject to continual change, in both the subjective experience itself and one’s understanding of their meaning. As these subjective feelings are only directly accessible to the individual experiencing them, any research exploring affect is challenged by multiple competing interpretations; the subject interprets their feelings, and the researcher interprets their words and meanings. A cultural-historical approach, particularly one relying on interview data to understand feelings, must acknowledge this ambiguity (Holodynski and Seeger, 2013).

#### *3.4.2.2 Relationships between affect and activity*

Affect is understood as integral to experience, influencing and influenced by social interactions and cultural contexts. Building on Vygotsky’s work, (Vygotsky, 1934/2012), Leont’ev framed feelings as inner signals of one’s sense of own and others’ actions, which exert a regulatory effect on human activity (Leont'ev, 1978, Holodynski, 2013).

Three aspects of affect have been described as influencing workplace activity, in particular influencing the choices that individuals make (Roth, 2007a, Damasio, 2000). Firstly, affective valence<sup>5</sup> (the potential affective payoff of an action) can impact on the choices that individuals make within the constraints of the system. Secondly, tacit or background feelings (the unconscious aspects of affect, such as tiredness) are constantly produced and reproduced as a consequence of actions, and condition operations. Thirdly, individuals’ perception of workplace mood (collective affect; an aspect of workplace culture), expressed for example as a feeling of discontent with management, influence and are influenced by individuals and the choices they make. Roth (2007a)

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<sup>5</sup> Roth (2007a) uses *emotional valence* to describe the potential emotional payoff of an action. The word valence was introduced to psychology by the social psychologist Kurt Lewin (1890-1947) from the German “valenz”, and relates to the intrinsic attractiveness or aversiveness of an action or situation (Frijda, 1986).

described a dialectic relationship between individual and collective affect, and a temporal dynamic aspect to affect:

The tacit aspects of emotion shape actions, which are observed by, and available as resources to, others. These others find themselves in emotional states, and interpret the actions of others in terms of the emotions they express; this interpretation is mediated by the activity system that frames the actions. In their own actions, these others may express the same emotions, which then gives rise to a sense of solidarity, which sustains and fuels individual short- and long-term affective states. (Roth, 2007a, p. 59)

In this study, participants' recollections of feelings and perceptions of workplace mood will be analysed as integral to *perezhivanie*.

#### 3.4.3 Continuity of experience

*Perezhivanie* can be explored from a temporal perspective (Jóhannsdóttir and Roth, 2014, Dewey, 1938/1997), foregrounding the importance of continuity of experience (Dewey, 1938/1997), and facilitating an understanding of different levels of individual development. Firstly, development arises from individual actions, albeit in the context of preceding experiences. Secondly, continuity of experience leads to longitudinal development, integrating learning from multiple experiences over a period of time, such as increased confidence in decision making. Thirdly, continuity of experience combined with experience of conflict can lead to expansive development (such as a change in job or career), relating to Engeström's concept of expansive transformation, but at the level of the person-in-environment rather than the system itself.

Combining the analytic power of CHAT to uncover system-level contradictions with potential to drive transformative change, with an understanding of subjectivity conceptualised as *perezhivanie*, should enable robust analysis of reflective activity during the Professional Development Phase (Daniels and Warmington, 2007). In the next section, a cultural-historical understanding of reflective activity is developed, exploring the work of key authors through a CHAT lens.

### *3.5 Cultural-historical perspectives on reflective activity*

Although CHAT has been used extensively within educational research settings, including schools and teacher education (Nussbaumer, 2012, Gedera and Williams, 2016, Knight et al., 2006), few studies specifically explore reflective activity. Rather, CHAT has been used as a framework to scaffold individuals' reflections (Yamagata-Lynch et al., 2013, Sandars, 2005), and to explore the challenges teachers face in their professional development (Yamagata-Lynch and Haudenschild, 2009).

In Chapter 2, understandings of reflective activity in healthcare settings were introduced, highlighting the work of commonly cited authors such as Dewey, Schön and Boud. Many aspects of Dewey<sup>6</sup> and Boud's conceptualisations of reflective activity have resonance with key principles of CHAT. In the following section, I will explore how their understandings of reflective activity can be viewed through a CHAT lens. An argument will be made that it is appropriate to integrate Dewey and Boud's conceptualisations of reflection within a CHAT framework, through discussion of four key aspects: reflection as social, purposeful activity; reflective actions as socially-mediated through language; the central role of experience and affect; and the importance of dialectical relationships.

#### 3.5.1 Reflection as social, purposeful activity

Both Dewey and Boud highlighted the purposeful, goal-directed nature of reflective activity. Dewey specifically distinguished three other kinds of thought from reflective thought: stream of consciousness, invention and belief. He acknowledged that these less disciplined thought processes may usefully generate questions for subsequent reflection, but did not consider them to constitute reflection (Rodgers, 2002, Dewey, 1933).

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<sup>6</sup> Whilst Dewey did not read the work of Vygotsky (which was not translated into English at the time), Dewey's work is likely to have been influenced by a visit to the Soviet Union in the 1920s; whilst Vygotsky does not refer often to Dewey in his writing, it is likely that he read and was influenced by some of Dewey's earlier works (Mayer, 2008, Glassman, 2001). Similarities have been drawn between the writings of Dewey and Vygotsky (Mayer, 2008, Engeström and Miettinen, 1999).

Dewey and Vygotsky shared similar concepts of object and motive (Engeström and Miettinen, 1999, Garrison, 2001), with Dewey defining object as:

The object of knowledge is not something with which thinking sets out; but something with which it ends: something which the processes of inquiry and testing, that constitute thinking, themselves produce. Thus the object of knowledge is practical in the sense that it depends upon a specific kind of practice for its existence. (Dewey, 1916, p. 334)

Boud's analysis of reflection as motivated by the learner clearly links to CHAT concepts of object-oriented activity and goal-directed action. Aligning with CHAT, context is conceived as socially-constructed and dynamic (Boud and Walker, 1998, Boud, 2010, van Oers, 1998).

It has been argued that the collective dimensions of reflective activity have been undertheorised (Collin and Karsenti, 2011). Whilst Dewey's definition of reflection is often considered to focus on the individual, he did acknowledge the importance of sharing and community.

A man really living alone (alone mentally as well as physically) would have little or no occasion to reflect upon his past experience to attract its net meaning. (Dewey, 1916/1944, p. 6).

Boud and others describe "Productive Reflection"<sup>7</sup>, highlighting a shift away from understanding reflection as a solitary activity, albeit undertaken within a social context, to a collective, organisational activity (Boud et al., 2006). Productive reflection integrates work with learning at the collective level; a dynamic and unpredictable process, it frames the development of groups of individuals and interacts with cultural and historical influences within and beyond the workplace. Outcomes of reflective activity are foregrounded; these may include a new way of doing a task or skill, clarification of a concern, or resolution of a problem.

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<sup>7</sup> Throughout the thesis, Productive Reflection refers to Boud and others' concept described in their book "Productive Reflection at Work" (2006). Less specifically, the word "purposeful" is used when discussion goal-directed, purposeful reflective activity.



Boud argues that productive reflection should be viewed as a socially-mediated activity. He notes that the point of intersection between the world of work and the participants' lifeworld, for example in the space created by travelling with a colleague, can provide an opportunity for reflection to be at its most productive (Boud et al., 2006). Dewey also valued the perspective of others, to heighten understanding of the individuals' own experiences, and the importance of communicating with others to truly formulate, articulate and test one's ideas (Rodgers, 2002), highlighting three benefits of collaborative reflection: affirmation of the value of one's experience; offering alternative viewpoints; and support to engage in the process of enquiry.

More so than Dewey, Boud gives attention to the different ways in which reflective activity is mediated, whether through writing (Boud, 2001), through social interaction, or through visualisation (Boud et al., 1985). Emphasising the importance of social interaction for purposeful reflection, Boud quotes Habermas:

The self-reflection of a lone subject...requires a quite paradoxical achievement: one part of the self must be split off from the other part in such a manner that the subject can be in a position to render aid to itself...[furthermore] in the act of self-reflection, the subject can deceive itself (Habermas, 1974, p. 28)

The next section considers how language can mediate reflective activity, additionally drawing on the work of Gillespie (Gillespie, 2007).

### 3.5.2 Reflective activity mediated socially through language

Much reflective activity is mediated by language; for example, the role of verbal interaction mediating reflective activity has been specifically explored in teacher education (Collin and Karsenti, 2011). The importance of language as a mediating tool to articulate thoughts is noted by Deweyan scholars:

Language is the key. It allows the individual to transform his or her own inchoate understanding into a form that is more conscious and rational, thus serving the self. It also allows the individual to share insight or understanding with others, thus serving the community. The role that language plays in simultaneously deepening individual understanding *and* allowing that understanding to be shared with others is truly wondrous. (Prawat, 2000, p. 821)

Even an individualised concept of self-reflection, as an internal thought process (i.e. reflective thought) can be viewed from a sociocultural perspective. Self-reflection has been defined as “a temporary phenomenological experience in which self becomes an object to oneself” (Gillespie, 2007, p. 678), with the distancing of self from the experience occurring through the use of semiotic mediators. Drawing on Vygotskian concepts of internalisation, Gillespie (2007) outlined a theory in which internalisation of the perspective of the other on self leads to an internal dialogue, triggering reflective thought. This construct of self and others’ perception of self can then mediate self-reflection in response to a sign – the gesture (or situation) which is experienced by self from the perspective of both self and other. Incorporating concepts of sign-mediated activity has the potential to support understanding of reflective thought.

The role of dialogue in activity theory is often viewed as that of mediating tool; however there are many situations whereby it can be argued that actions are constituted by dialogue rather than merely mediated by it (Wells, 2007). There is a challenge inherent to identifying the goals of action in which dialogue plays a part; the goal(s) are rarely defined by either participant, and each participant may often be working towards multiple simultaneous goals, albeit not all of which will be recognised consciously by the participant (Wells, 2007, de Lange and Lund, 2008).

### 3.5.3 The central role of experience and affect

Dewey’s focus on analysis of experience foregrounds the historicity of the individual:

For Dewey, the heart of reflection is inquiry in which individuals’ former experiences may be put to work. In this view, reflection becomes a conscious and voluntary effort to establish connections and continuities in individuals’ lived experiences. (Hoyrup and Elkjaer, 2006, p. 31)

Resonating with concepts of *perezhivanie* outlined above, Dewey’s principle of the continuity of experience “means that every experience both takes up something from those which have gone before and modifies in some way the quality of those which come after” (Dewey, 1938/1997, p. 37). The focus on experience moves the understanding of reflection beyond purely cognitive processes; it requires concrete experiences, and makes meaning of those experiences, an understanding of actions and consequences.

Although Dewey is sometimes critiqued for overlooking the affective dimensions of reflection, he highlighted both the affective and intellectual aspects of human nature, recognising that attitudes can harness or block reflection:

Human beings are not normally divided into two parts, the one emotional, the other coldly intellectual – the one matter of fact, the other imaginative...

Natively and normally the personality works as a whole. There is no integration of character and mind unless there is fusion of the intellectual and the emotional, of meaning and value, of fact and imaginative running beyond fact into the realm of desired possibilities. (Dewey, 1933, p. 278)

Boud foregrounded experience and affect through articulation of three key elements of the reflective process: returning to the experience, attending to feelings, and re-evaluating the experience. Returning to the experience means replaying the experience in the mind or describing it to others. Again resonating with the concept of *perezhivanie*, for Boud, experience encompasses “the total response of a person to a situation or event: what he or she thinks, feels, does and concludes at the time and immediately thereafter” (Boud et al., 1985, p. 18). Attending to feelings implies reflecting on the positive feelings associated with the event or possible benefits of reflecting on that event; acknowledging and, if possible, reducing obstructive feelings to support objective analysis of the event. These steps are all dependent on the intent of the learner, an individual-acting-with-mediational-means (see 3.2.3.1):

As learners, we do not wish to subject all of our experiences to the same level of reflective analysis. Indeed, there are some events in our lives which we would prefer to forget and others that we would like to cherish as simple memories. When we do desire to process our experience and to extract consciously some learning outcomes from it, the way in which we do so will be influenced by our goals and intentions. (Boud et al., 1985, p. 31).

#### 3.5.4 Dialectical relationships

Dewey’s work and CHAT share similarities in their concern for the dialectical relationships between thought and activity, practice and theory (Engeström and Miettinen, 1999). For Boud, productive reflection highlights dialectical relationships such as the tension between formality and informality; there are risks inherent to

formalising the informal by, for example, the use of reflective writing and portfolios. It is suggested that both formality and informality, and similarly performativity and an absence of performativity, may be necessary:

All formal activities have informal elements that may support or undermine them. Similarly, some elements of formality may be needed to make informal activities work well. (Boud, 2006, p. 166)

It is timely for research that facilitates exploration of any such tensions through understanding how reflective activity is experienced in the workplace.

### *3.6 Defining reflective activity within the theoretical framework*

Through an activity theory lens, where transformative learning can occur as a consequence of the inner, historically-accumulated contradictions within the system (Engeström, 2000b), reflective activity can be viewed as

...a mode of comprehending these contradictions and understanding possibilities of changing activity within the framework of the same system by way of a new mediation...reflection as a new mediation is necessary for changing activity, for generating and constructing something new (Lektorsky, 2009, p. 86)

For the purposes of this study it was important to define reflective activity in a way that emphasises the social, situated, and cultural aspects and incorporates varied actions such as thought, talking, and writing. Drawing on the discussion above and in section 2.3.2, and building upon a published definition (Sandars, 2009, Wald, 2015b) the following definition was developed:

Reflective activity encompasses a set of interconnected actions carried out individually or in interaction with others, before, during and after experiences, with the goal of developing greater understanding of the experience, self and others, so that future experiences are informed from previous encounters. All reflective activity, whether undertaken individually or in direct interaction with others, is influenced by local and wider cultural and affective contexts and the historicity of the individual and social context.

The theoretical framework for this study, drawing on the discussion above, is summarised in Table 3-1. Understanding reflective activity as social and purposeful emphasises the collaborative nature of many reflective actions, the value of understanding the goals of reflective actions, and the influence of language as a mediating tool through social interaction. Foregrounding the subjectivity of the participants, through the concept of *perezhivanie* as experiencing, highlights the dialectical relationship between the subject and object of the system, as they influence and are influenced by others and the environment.

*Table 3-1 Theoretical framework*

Focus	Theoretical frame	Key concepts employed
Reflection as activity	Reflective activity as social and purposeful (Dewey, 1910/2012, Boud et al., 1985, Boud et al., 2006), understood through the frames outlined below	
Activity system	Cultural historical activity theory (Engeström, 2001, Engeström, 1987, Leont'ev, 1981)	Object-oriented activity system as unit of analysis: tools, rules, community and division of labour Multivoicedness Historicity Contradictions and dialectics Expansive transformations Three levels of activity – operation, action and activity
	Mediation (Vygotsky, 1978, Vygotsky, 1934/2012)	Thought and speech
Subjectivity	Perezhivanie as experiencing (Vygotsky, 1994, Jóhannsdóttir and Roth, 2014)	Integrating affect and activity Continuity of experience

### *3.7 Chapter summary*

In Chapter 2, an argument was made for considering reflective activity as a situated, collective activity within the workplace, highlighting the importance of support during the transition to professional practice. Chapter 3 has discussed how sociocultural theories, particularly CHAT, can provide a way of understanding real-world, everyday problems, with potential for identifying possibilities for transformative change at both the individual and collective level. The rich traditions of CHAT, building on Marx and Vygotsky, emphasise the object-oriented nature of human activity and the force of dialectical tensions within systems for driving change. Through delineating the system

of reflective activity during the Professional Development Phase, using Engeström's triangle heuristic, a bottom-up approach to understanding how recently qualified veterinary surgeons experience reflective activity should be possible. Through identifying mediating tools, explicit and implicit rules, the role of others within the community, and the significance of division of labour and hierarchy a picture of reflective activity can be built, creating an opportunity to illuminate otherwise hidden conflicts and contradictions within the system, and identifying opportunities for expansive development, at individual, collective and system levels. Vygotskian concepts of mediation, and the relationships between thinking and speech, have the potential to deepen understanding of the role of interaction and language in supporting reflective activity. Foregrounding subjectivity brought to the system by individuals, the concept of *perezhivanie* as experiencing will be used to understand how affect interacts with actions and influences the system. Affect, as an integral part of experience, will be explored through analysis of subjective feelings, acknowledged as temporal and influenced by socially-derived sense and meaning. Consideration of temporal aspects of experience will help explain the development that occurs as a result of reflective activity. It is argued that, whilst the work of Dewey and Boud come from different philosophical traditions from the theoretical concepts used in the study, the concepts of reflective activity articulated by these authors align with the CHAT approach, including an understanding of the importance of collaborative activity, the importance of social mediation through language, the central role of experience and affect, and the dialectical relationships within the system.

In Chapter 4 the methodological approach taken in the study will be discussed.

## Chapter 4 METHODOLOGY

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As introduced in Chapter 1, the aim of the study was to understand how recently graduated small animal veterinary surgeons engage in reflective activity. Three research questions were identified:

1. How is the system of reflective activity constructed during recently qualified veterinary surgeons' Professional Development Phase?
  - a. What resources are used and how do they mediate reflective activity?
  - b. What is the role of interaction with others?
  - c. What are the outcomes of reflective activity?
2. What roles do affect and experience play in brokering and motivating reflective activity?
3. What conflicts and contradictions are experienced when engaging in reflective activity during the professional development phase, and how do these impact on the outcome of reflective activity?

This chapter explains the methodological principles and frameworks that influenced the research design. The research design is described, and the data collection and analysis methods explained and justified. Ethical implications are then considered, followed by discussion of researcher positioning and challenges that were encountered during data collection and analysis.

### *4.1 Methodological principles and framework*

#### *4.1.1 Defining reflection as social activity*

As discussed in earlier chapters, through CHAT reflective activity is understood as a situated, collective, socially-mediated activity, a concept of reflection that is emerging in more recent literature yet often overlooked in healthcare settings (Boud et al., 2006, Kilminster et al., 2010a, Bleakley, 1999, Ng et al., 2015). The definition of reflective activity used in this study was discussed in section 3.6 (p. 57), theorising reflective activity as a set of actions, which can be carried out individually or with others, but always culturally and socially-mediated.

#### 4.1.2 Ontology and epistemology - social constructionism

The ontological and epistemological perspective for this study is that of social constructionism. Ontologically, through social constructionism it is understood that there can be multiple realities, grounded in experience and context-dependent (McMillan, 2015); meaning “comes into existence in and out of our engagement with the realities in our world” (Crotty, 1998, p. 8).

Epistemologically, through social constructionism it is understood that knowledge is constructed through human interactions with one another and with the world (Crotty, 1998). Social constructionism facilitates an understanding of reflection as social activity; it places emphasis on the everyday interactions between people, and explores how the language they use constructs their reality (Andrews, 2012). More specifically, social constructionism “contends that knowledge is sustained by social processes and that knowledge and social action go together” (Young and Collin, 2004, p. 376). Our lived experiences shape us as individuals; knowledge and meaning are co-constructed and historical, in both the development and enactment of a social activity. When considering reflective activity within the PDP, a constructionist epistemology supports exploration of the mediating tools, processes and cultures as understood and experienced by participants in the system.

The next section considers the links between social constructionism and CHAT.

#### 4.1.3 Methodology and CHAT

Social constructionism and CHAT share roots embedded in Marxism (Crotty, 1998). The inherent focus on understanding the role of human activity, the influence of culture, and the importance of meaning-making, require deep engagement with the participants and the context being researched. Data gathered can be used to seek meaning in both words and actions, and to seek understanding of the historical and cultural factors which influence construction and enactment of the activity being explored.

A qualitative study (Cohen et al., 2007) was chosen to problematise and understand reflective activity within the context of small animal practice. Qualitative researchers aim to understand and interpret human behaviour and experience, and the ways in which people construct meaning, believing that everyone has “a story to tell” (Bogdan



and Biklen, 2007, p. xiii). By gathering data through activities such as interviews, qualitative research helps to

...bring the strength of sensitivity to meaning and to context, local groundedness, the in-depth study of smaller samples, and great methodological flexibility which enhances the ability to study process and change. (Punch, 2014, p. 304)

This approach resonates with CHAT, supporting understanding of dynamic local and wider cultural contexts, where activity comprises goal-oriented actions, in which conflicts and contradictions can lead to transformative change. Taking a qualitative approach allowed the gathering of rich data from a relatively small number of participants<sup>8</sup>, each with their own histories and experiences (Barker et al., 2002).

In exploring meaning within activity, there is a double hermeneutic (Crotty, 1998, p. 56), relating to the two levels of interpretation involved in qualitative research. The researcher must firstly interpret the meanings of the participants' words and actions within their own social contexts and experiences, before "reconstituting these within the new frame of meaning involved in technical conceptual schemes" (Giddens, 1976, p. 79, cited by Crotty 1998). Within CHAT, the researcher must gather data that enables the construction of meaning from a range of perspectives (multivoicedness, see 3.3.3), and situate and interpret those meanings through a CHAT framework.

The next section explains the overarching design of the study, before discussion of the data collection and analysis methods in detail.

## 4.2 *Research design*

The research design is summarised in Figure 4-1. The study used the theoretical principles of CHAT to focus on the system of reflective activity during the PDP as the unit of analysis, whilst still foregrounding the experience of individuals through the concept of *perezhivanie* as experiencing (see 3.4, p. 48). Data comprised documents and semi-structured interviews (discussed further in section 4.3). Documentary data facilitated

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<sup>8</sup> Throughout the thesis, interviewees are referred to as participants rather than subjects to emphasise their active, voluntary involvement in co-construction of knowledge (Guillemin and Gillam, 2004, Barker et al., 2002).

understanding of the context of the PDP within the UK veterinary profession, as well as giving access to the “voice” of the RCVS. Interviews with fifteen recent graduates, undertaken during May-July 2016, enabled exploration of participants’ experiences of the activity system. Analysis was undertaken subsequently in three stages, addressing each of the research questions in turn, using thematic and dialectical analysis (discussed further in section 4.4).

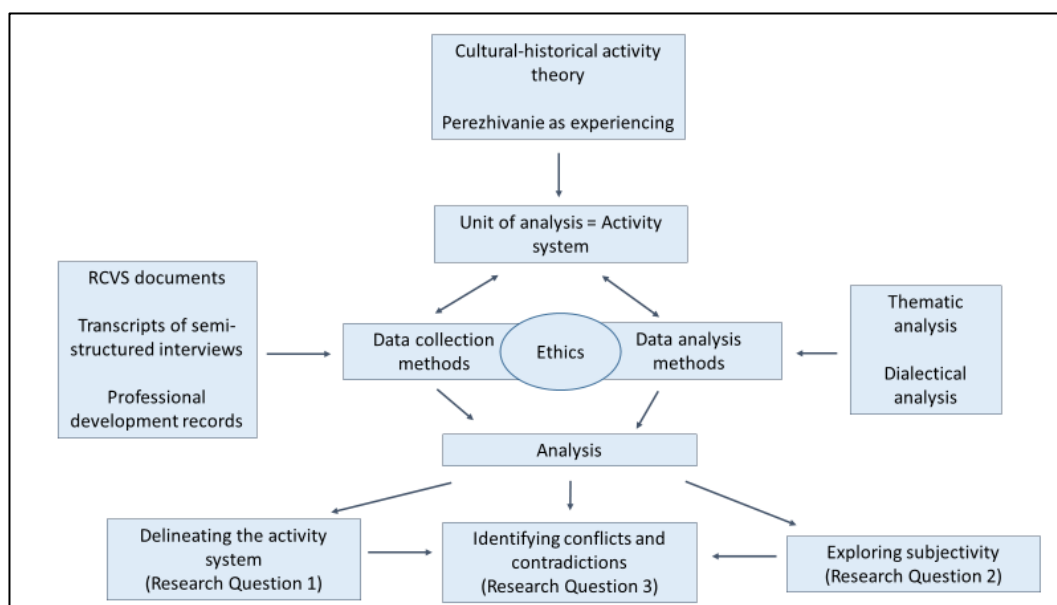


Figure 4-1 Overview of research design

The following section discusses the sampling and recruitment strategy for participants.

#### 4.2.1 Sampling and recruitment of interview participants

Participants were recruited from the 2013 cohort of graduates from the veterinary programme at BigCity University<sup>9</sup>, working predominantly (>70% of their time since qualifying) in small animal practice. Further details of the University, Programme and participants are provided in Section 5.1. The rationale for the inclusion criteria is as follows. Firstly, the focus on small animal practice minimised the variation imposed by other work settings (such as farm animal practice, see 1.2), and grounded the study in a context relevant to the majority of recent graduates (Robinson and Buzzeo, 2013). Secondly, restricting participants to graduates from a single university meant that undergraduate training and exposure to formal reflective activities would be similar for

<sup>9</sup> BigCity University is used as a pseudonym to enhance institutional and participant anonymity

all participants, facilitating understanding of the influence of shared history. Finally, with interviews taking place during the summer of 2016, it was considered likely that many of the 2013 cohort would have completed their PDP; an average time to completing the PDP is reported to be 16 months (range 1-51 months) (Robinson and Buzzeo, 2013). Having completed the PDP and potentially experienced different jobs and workplaces, it was anticipated that participants would be able to reflect on their experiences within a range of different settings.

Careful consideration of sampling strategy is essential to ensure the quality of research (Cohen et al., 2007). The 2013 graduating cohort comprised 98 veterinary surgeons; based on national survey data it was estimated that 60-70 of these were likely to be working in small animal practice (Robinson and Buzzeo, 2013). Determination of sample size for the study was based on review of literature, balanced with factors relating to feasibility in terms of recruitment, time and cost (Cohen et al., 2007). Participant numbers in qualitative interview studies are reported to vary between five and fifty (Mertens, 2010, Creswell, 1988); sample sizes of around twelve may be appropriate if, as in this study, heterogeneity in the sample is restricted, the interviews are carefully structured and the research questions are focused on, for example, a single activity system (Guest et al., 2006). Balancing these factors, a sample size of fifteen was proposed. Issues relating to consent and ethics are considered further in section 4.5.

All interviews took place between May and July 2016 (Table 4-1), facilitated by a period of part-time study leave.

*Table 4-1 Timing of interviews*

<b>Month (2016)</b>	<b>Number of interviews</b>
May	5
June	9
July	1

A two-stage recruitment strategy was employed. An initial recruitment campaign was undertaken over a three-week period in May 2016 to publicise the study widely throughout the UK profession, raising the profile of the study amongst the target cohort (APPENDIX A), with a letter published in a widely read UK veterinary publication, posts on the Year Group's Facebook page, email communication from the RCVS, and

advertising in British Small Animal Veterinary Association publications. Potential participants were invited to register their interest via email or telephone communication with the researcher. Twenty-two people responded; each was sent an Information Sheet providing further details of the study (APPENDIX B) and asked to complete an online recruitment survey (APPENDIX C) incorporating consent for use of demographic data to inform the second stage of the recruitment strategy and ensure access to contact details.

In the second stage, data obtained through the recruitment survey were used to inform purposive sampling (Silverman, 2013, Robson and McCartan, 2016). Purposive sampling requires the researcher to think critically about the parameters of the study population; in this study a typology was used (Table 4-2) to ensure a balance of gender and type of workplace experience representative of the wider cohort (Silverman, 2013). The typology was developed by drawing on RCVS surveys reporting data related to gender of recent graduates, and types of workplace in which recent graduates are employed (Buzzeo et al., 2014, Robinson and Buzzeo, 2013).

*Table 4-2 Purposive sampling typology and recruitment data*

		<b>Target % of participants</b>	<b>Actual % of participants</b>
<b>Gender</b>	Female	80-90%	87%
	Male	10-20 %	13%
<b>Type of workplace</b>	Private independent	75%	65%
	Corporate	15%	24%
	Referral	10%	11%

Of the 22 interested participants, three had spent less than 70% of their working time in small animal practice, one was working abroad, and one was a 2014 graduate. From the remaining 17, 15 were purposively selected to best meet the requirements of the sampling typology. Further details of the participants are presented in section 5.1.

Once participants were identified, email was used to arrange a convenient time and place for the interview, usually in the evening at the participant's home or workplace. Participants' locations ranged from 1-250 miles (median 137 miles) from BigCity University. One week prior to interview, a consent form was emailed to the participant (APPENDIX D), and they were asked to share their online PDR with the researcher (a

facility provided by the online platform hosting the PDR). An email was sent to the seven individuals not selected for interview, thanking them for their interest.

The next sections describe and justify the choices of data collection and analysis methods, considering the limitations of each.

### *4.3 Data collection methods*

Research within the CHAT tradition has employed a wide range of data collection methods, including interviews, observations and documentary data (Yamagata-Lynch, 2010). This study used documentary data and semi-structured interviews, each of which is discussed further below.

#### *4.3.1 Documentary data*

It was important to develop a detailed understanding of the cultural and historical context of the PDP within the UK veterinary profession. “Documents, both historical and contemporary, are a rich source of data” (Punch, 2014, p. 158). Documents are culturally and historically created artefacts, “produced by human beings acting in particular circumstances and within the constraints of particular social, historical or administrative conditions” (Finnegan, 2006, p. 144). Two groups of documentary data were collected: resources produced by the RCVS, and the online professional development records (PDRs; see 1.2.1) of the interview participants. The rationale for including each of these is discussed in turn.

To understand the history of the PDP and the information available to participants as they undertook the PDP, RCVS documentation was collated for both direct, and indirect uses (Finnegan, 2006). Documents provided direct evidence of the rules and processes for the PDP, as communicated to recent graduates (Research Question 1). Indirectly, and importantly within CHAT, the documentation provided an opportunity to hear the “voice” of the RCVS. From a Marxist perspective, the RCVS is in a position of power, with the means of material production of resources within its control; understanding the RCVS documents from this perspective informed analysis of conflicts and contradictions within the system (Research Question 3). Various resources were identified through the RCVS website (<http://www.rcvs.org.uk/education/lifelong-learning-for-veterinary-surgeons/professional-development-phase-pdp/>). Analysis focused on the PDP Guidance (RCVS, 2012b), subsequently updated (RCVS, 2016b). Additional RCVS

resources used to increase the researcher's understanding of the PDP included example PDP notes, and an online webinar. Versions of documents available to 2013 graduates were accessed, either online (<https://archive.org/web>) or directly from the RCVS Education Department.

Each interview participant was asked to provide access to their online PDR, to act as a prompt during interviews, and to help understand the role of the PDR within their wider reflective activity. Additionally, the PDR provided concrete, naturally-occurring examples of the participants' reflective actions (Silverman, 2014). Initially it was intended that the PDRs would form a major source of data for analysis; however during interviews it became apparent that for many participants the PDR was peripheral to their reflective activity, and that the writing within them was primarily descriptive rather than reflective. Nevertheless, having access to the record for each participant helped ground the interviews in documented experience, and supported recall by acting as a "memory prosthesis" (Dempsey, 2010, p. 351).

#### 4.3.2 Semi-structured interviews

Working within a qualitative, social constructionist paradigm, and foregrounding the importance of participants' lived experiences through CHAT, semi-structured interviews were considered an appropriate method to explore participants' experiences of reflective activity (Peräkylä and Ruusuvuori, 2011). Interviews, and the narratives within, are gathered to explore "the meaning experienced by people whether or not the events are accurately described" (Polkinghorne, 2007, p. 479). It is important to acknowledge that, from a constructionist perspective, the knowledge generated in an interview is co-constructed by the interviewer and participant:

Respondents' answers and comments are not viewed as reality reports delivered from a fixed repository. Instead, they are considered for the ways that they construct aspects of reality in collaboration with the interviewer. (Gubrium and Holstein, 2011, p. 77-78)

From a constructionist perspective, the interview process did not seek incontrovertibly authentic accounts of events (Brinkmann and Kvale, 2015). Influenced by the passage of time, with changing perceptions and authenticities, and acknowledging the relationship between the interviewer and participant (see 4.6), the data was considered to represent

narrative accounts of social worlds creating an opportunity to explore disjuncts between cultural frames and expectations and the perceived experience (Miller and Glassner, 2011).

By focusing on specific situations, and with access to a printed copy of the participant's PDR to support recall, it was possible to ground participants' stories in their lived experience. It was possible to explore how reflective activity was constructed as a system at both a practical and conceptual level through a CHAT lens (Research Question 1) (Yamagata-Lynch, 2010). The focus on participants' lived experience was invaluable for exploring aspects of subjectivity through *perezhivanie* (Research Question 2), and for identifying examples of conflicts experienced by participants (Research Question 3).

#### 4.3.3 Designing the Interview Guide

To help ground discussions in experience, the interview guide (APPENDIX E) was designed to explore examples of specific situations and related reflective actions, drawing out details of the participants' perspectives on the wider activity system. Throughout, care was taken to phrase questions in accessible language, use open questions, and avoid complex or multiple questions (Beauchamp et al., 2009, King, 2004a, Mertens, 2010, Barker et al., 2002).

The interview guide was structured in four sections. Firstly, after initial orienting questions relating to their workplaces, participants were asked to describe their understanding of the words "reflection" and "reflective practice", to explore their understanding of the activity and its object. In the second and third sections, participants were asked to recount their experiences of reflecting on two contrasting situations. Through prompting for the choice of second story, the two situations described differed either in terms of how recently they had occurred, or whether they related to a clinical or non-clinical (e.g. interpersonal) challenge. Asking participants to choose which stories to recount (rather than researcher-selected cases from the PDR) meant that recall of their experience was likely to be good due to high value of that situation to the participant. Questions were phrased in a manner designed to elicit information relating to the why, with whom, and how questions of reflective activity, in order to enable subsequent delineation of the activity system in terms of object, outcome, tools, community, rules and division of labour (Engeström, 2001). Reasons for inclusion, or not, of the case in the PDR were discussed to help situate the PDR within

their wider reflective activity, and to understand the role of writing compared to other reflective actions. There was a focus on exploration of feelings that occurred, to underpin subsequent analysis of subjectivity. In the final phase, participants' reflective activity was explored in more general terms, asking for specific examples where appropriate, to avoid an over-reliance on memorable episodes which could over-represent atypical situations in the data (Eraut, 2004a). Additionally, this last phase was an opportunity to explore participants' previous experiences with reflective activity and the impact of different workplace cultures, enhancing subsequent analysis of subjectivity and contradictions.

Following piloting with a work colleague (a 2013 graduate) (Barker et al., 2002), several changes were made including modification of questions to enhance understanding of the goals of particular actions, and increasing the emphasis on understanding the "when and where" of reflective activity, to help ground discussions in reality. The pilot interview also highlighted the role of digital media as tool (e.g. WhatsApp), and the need to add specific questions relating to PDP processes so that participants' concerns regarding this were heard without distracting from discussion of wider reflective practice. Further minor modifications were made following the first two interviews (APPENDIX E).

#### 4.3.4 The interview process

Paper copies of the interview schedule, the participant's PDR (annotated with any comments or queries), consent form and participant information sheet (the latter two of which had been previously emailed to the participant) were brought to each interview. Any queries were discussed and the consent form signed.

All interviews were audio-recorded, ranging in length from 75 to 119 minutes (median 89 minutes). The interview guide was followed, with additional probing questions to seek examples or clarify meaning (Bogdan and Biklen, 2007), striving to "stay with" the participant through co-construction of meaning (Nicolson, 2003, p. 144) rather than sticking rigidly to the sequence of questions in the guide. Through thoughtful questioning I sought to gather in-depth data and rich, "thick description" (Geertz, 1973, p. 6). To enhance authenticity of data, I ensured time was allowed for recall as well as for detailed narrative of specific situations, and I directed the participant to concrete cues within their PDR where appropriate (Brinkmann and Kvale, 2015). I sought a level



of understanding that at times involved reading between the lines of the participants' accounts; during an interview I would "send it [my interpretation of meaning] back" to the participant for confirmation or rejection (Brinkmann and Kvale, 2015, p. 33).

Following each interview, I made notes to help me recount the specifics of the interaction, recording any details of travel, location and set-up that were of interest, as well as my initial reactions and observations. Within 48 hours of each interview I listened to the audio-recording whilst making summary notes of the discussions. Each interview was then transcribed. I transcribed the pilot and one other interview; all others were transcribed by a commercial transcription service. I read all transcriptions to check for accuracy, correcting any errors by referral back to the original audio recording, and removing any names of people or places to enhance anonymity. Member-checking was undertaken by offering all participants the opportunity to read the transcript of their interview; thirteen took up the offer but only one provided further comment on their transcript.

#### *4.4 Data analysis methods*

Within CHAT, analysis usually starts with delineation of the different components of an activity system. Subsequent analysis focuses on the dynamic conflicts, tensions and lack of shared understandings within and between components of the system, as well as at the boundaries with closely related systems (Timmis, 2014). This analysis enables problems to be articulated, and opportunities for change to be identified and negotiated, through paying attention to multiple voices and perspectives (Engeström, 2007) within a particular socially-constructed and dynamic context (van Oers, 1998). The overarching approach to data analysis moved from delineation of the activity system (RQ1), through exploration of subjectivity (RQ2), to identification of conflicts and contradictions within the system (RQ3).

##### *4.4.1 The unit of analysis*

As outlined in 3.3.3, the unit of analysis in a CHAT study is object-oriented activity embedded within its social context (Yamagata-Lynch, 2010, Engeström, 2015), with context viewed as a socially constructed and dynamic entity (van Oers, 1998). For this study, the system was that of reflective activity during the RCVS professional development phase (PDP), as experienced by recently qualified veterinary surgeons

working in small animal practice in the UK. At each stage of analysis, attention was paid to distinguishing activity, actions and operations (Figure 3-2, p. 43). The structure of an activity system was conceptualised using Engeström's triangle heuristic (Engeström, 1987) (Figure 3-3, p. 44). The system of reflective activity during the PDP is presented and described in detail in Chapter 5 (summarised in Figure 5-2, p. 93), outlining the tools, relationships, rules, roles and power dynamics which influenced how reflective activity was constructed during the PDP. Reflective actions were understood as goal-directed actions such as talking, thinking or writing, undertaken in response to specific situations and underpinned by operations and conditions; analysis of actions drew on Vygotsky's concept of the mediated act (Figure 3-1, p. 38), with a focus on subject, goal, and mediating tool. For example, a recent graduate, following an unexpected complaint from a client, might engage colleagues and/or family in reflective discussions (mediated by language) with the goal of developing a better understanding of the situation; they might also choose to write reflectively in their PDR. Additionally, with the second research questions focusing on aspects of subjectivity, the experience of the participants was foregrounded through the lens of *perezhivanie*, focusing on their reported feelings and interactions with the system, as the "person-in-environment" (Jóhannsdóttir and Roth, 2014). For example, the graduate receiving a client complaint might experience feelings of anger or frustration that highlight a need for reflective discussion; however they might have limited opportunities for discussion with colleagues due to working patterns or perceived hierarchies within the practice.

#### 4.4.2 Methods and process of analysis

Following a preliminary stage of familiarisation with all the data, analysis was undertaken in three stages, linked to each of the three main research questions and summarised in Table 4-3. The preliminary phase, occurring over several weeks of "dwelling" in the data (Engeström, 1987, p. 250) ensured that I had an overview of the data, and was able to begin to conceptualise the activity system. Subsequently, stage 1 enabled detailed description of the activity system. Stage 2 enabled understanding of subjectivity to be developed, exploring aspects of experience and affect. Stage 3 allowed detailed exploration of the contradictions within the system which could lead to transformative change at individual or collective levels. Stages 1-3 are discussed in more detail below.

Table 4-3 Overview of Data Analysis

Stage of analysis (RQ = research question)	Purpose	Analytic activity	Data
<b>Preliminary</b>	<b>Dwelling in the data</b>	Read all data and make initial notes	All
<b>1</b> (RQ1: How is the system of reflective activity constructed during recently qualified veterinary surgeons' Professional Development Phase)	<b>Delineation of the activity system</b>	<b>Thematic analysis:</b> <i>theoretically-informed categories</i> relating to Engeström's triangle heuristic	PDP guidelines and RCVS resources; Interview transcripts
<b>2</b> (RQ2: What roles do affect and experience play in brokering and motivating reflective activity? )	<b>Exploring subjectivity</b>	<b>Thematic analysis:</b> <i>theoretically-informed categories</i> relating to affect, historicity, continuity of experience and expansive development; identification of emergent themes	Interview transcripts
<b>3</b> (RQ3: What conflicts and contradictions are experienced when engaging in reflective activity during the PDP, and how do these impact on the outcomes of reflective activity?)	<b>Dialectic analysis</b>	<b>Thematic analysis:</b> Identify all actions, conflicted actions and contradictions and use <i>inductive analysis</i> to identify themes	PDP guidelines and RCVS resources; Interview transcripts

Thematic analysis (used in stages 1-3) adhered to published principles (Braun and Clarke, 2006). More specifically, a template approach to thematic analysis was undertaken; template analysis is a systematic and hierarchical form of thematic analysis, allowing for themes to emerge both from the data as well as from a theoretical framework (King, 2004b, Frambach et al., 2014) . A hierarchical structure of categories (theoretically-informed for phases 1 and 2, developed inductively for phase 3), themes, and codes was used. In each phase of analysis, the RCVS guidelines and five of the transcripts were analysed to generate an initial thematic template, which was then iteratively reviewed during analysis of the remaining transcripts and supporting RCVS resources. The full thematic template is shown in APPENDIX F. Further details related to each stage of analysis are provided in the next sections.

**Thematic analysis 1: Theoretically-informed categories for delineation of activity system (Engeström, 1987)**

- Subject
- Object
- Tools
- Rules
- Community
- Division of labour
- Actions and goals

*Figure 4-2 Thematic analysis 1: Theoretically-informed categories for delineation of activity system (see Appendix F for full thematic template)*

Firstly, a separate paper template heuristic was developed for the RCVS (see Figure 5-1, p. 90) and for each participant (e.g. APPENDIX G, p. 191), outlining the activity system as understood from RCVS documentation and from the reported experiences of each individual respectively. To create the heuristic for each participant, reported actions (e.g. talking, thinking or writing) and goals (e.g. developing greater understanding) arising from specific situations were analysed, in addition to aspects of rules, community and division of labour which influenced engagement in these reflective actions; a heuristic was then developed which summarised the activity system as experienced by that individual. Additionally, examples of development arising from individual actions were analysed to contribute to understanding of the outcomes of reflective activity. Subsequently, thematic analysis of findings from all data sources was used to create a final version of the heuristic (see Figure 5-2, p. 93), highlighting differences between the activity system as described by the RCVS compared to the participants.

#### 4.4.2.2 Stage 2: Exploring subjectivity

Thematic analysis was undertaken as described above, coding all the transcripts for excerpts relating to each of the categories in Figure 4-3, in turn, relating to affect, historicity, continuity of experience, and expansive development of the subject.

##### **Thematic analysis 2: Exploring subjectivity through perezhivanie**

###### **Theoretically-informed categories:**

- Affect (Roth, 2007a)
- Historicity (prior experience) (Engeström, 2001)
- Continuity of experience (Jóhannsdóttir and Roth, 2014)
- Expansive development (Engeström, 2001)

###### **Additional themes emerging from data:**

- Affective triggers for reflective actions
- Different actions for clinical compared to affective aspects of situations

*Figure 4-3 Thematic analysis 2: Exploring subjectivity (see Appendix F for full thematic template)*

During the development of the thematic templates, concept maps (Daley, 2004) were used to summarise themes, and link associated codes (identified by participant number and transcript page) back to the original data. Concept maps were reviewed throughout data analysis, informing iterative modification of the thematic template, and ensuring that codes could always be traced back to source.

Aware of the challenges of analysing affect (see 3.4.2.1), feelings were analysed at the action level (Engeström, 2009). Transcripts were reviewed for examples of self-reported feelings, both in response to specific questions (for example question 2 in Interview Guide; Appendix E, p. 185) and more generally during the interviews; these feelings were conceptualised as integral to the experience of the subject as they engaged in reflective actions in response to a situation. For example, feelings of anger experienced following a client complaint might lead the graduate to engage in reflective thought or seek out opportunities for reflective discussion; they might also describe feelings of frustration if the wider system limited their access to colleagues. The wider influence of affect on reflective activity was explored through analysis of data relating to the anticipated affective valence of engaging in reflective actions, tacit aspects of affect, and perceptions of workplace mood (Roth, 2007a) (see 3.4.2.2). An additional theme

emerged inductively from the data, relating to the difference between reflective actions undertaken on clinical aspects compared to affective aspects of a situation. Where this distinction was apparent, further analysis of associated actions and goals was undertaken.

Transcripts were reviewed for examples of where prior experiences in professional or personal lives clearly influenced reflective activity. The development of participants over time was understood through analysis of their continuity of experience, identifying examples of the development that arose from cumulative experiences. Expansive development of individuals was identified where conflicts they experienced, over time, led them to transformative change such as seeking a new job.

#### 4.4.2.3 Stage 3: Dialectic analysis

Dialectical analysis “examines how different elements or aspects of the system are related oppositionally, pulling in different directions” (Timmis, 2014, p. 23). Dialectic analysis was undertaken in two phases, using the approach described by Sannino (Sannino, 2005) in which action level *conflicts* are considered to arise from system level *contradictions*. First, all examples of actions, conflicted actions and contradictions in the data were highlighted, drawing loosely on linguistic cues such as “but”, “no/not”, use of metaphor, expressions of helplessness and rhetorical questions (Engeström and Sannino, 2011). For each participant and the RCVS, findings were annotated on a separate triangle heuristic (see example in APPENDIX H). Thematic analysis continued as outlined above, with concept maps (Daley, 2004) (example provided APPENDIX I) used to support the development of a combined heuristic (see Figure 6-1, p. 115) and

#### **Thematic analysis 3: Conflicts and contradictions**

1. The need for support
  - a. Converting worry into goal-driven reflective action (subject:object)
  - b. Other individual’s perceived attributes creating conflict that limits use as a resource (community:tools)
  - c. Workplace culture restricting opportunities for reflective actions (division of labour:tools)
2. Formalising the informal
  - a. Contradiction in object between PDP Guidance and format of PDR (tools:object)
  - b. Conflict between preferred and required reflective actions (subject:tools)
  - c. Impact of rules on object of reflective activity (rules:object)

Figure 4-4 Thematic analysis 3: Conflicts and contradictions (see Appendix F for full thematic template)

thematic template (Figure 4-4). Conflicts were grouped within two overarching themes, presented in detail in Chapter 6.

#### *4.5 Ethics and informed consent*

Ethical considerations underpinned all stages of the design and conduct of the study, with attention paid to key ethical principles including respect for people, consideration of benefits and risks to participants and wider society, and integrity of the research (Farrimond, 2013). In line with ethical priorities identified by Hammersley and Traianou (2012), the principle concerns for this study were ensuring that informed consent was obtained, provision of anonymity, adherence to data protection legislation, and ensuring participant and researcher safety, each of which is discussed below. My insider-outsider positioning (see 4.6) influenced and informed ethical considerations.

The ethics procedure of the University of Bristol's Graduate School of Education was followed, informed by standard guidelines (BERA, 2011) and the UK Data Protection Act (1998) (Punch, 2014). Following development of the research proposal through discussion with my supervisor, the School's Research Ethics Form was completed (APPENDIX J). An ethics discussion meeting was held with a fellow doctoral student, and following further discussion with my supervisor, an updated version of the Ethics Form was submitted to the Ethics Committee in April 2016, along with copies of the recruitment emails, information sheet, recruitment survey, consent forms, and interview guide. Email confirmation of ethical approval was received on 4<sup>th</sup> May 2016 (Project Number 35421).

Informed consent was essential to ensure that participants were fully aware of the purpose of the study, who was undertaking the research, what their role would be should they consent to take part, and their right of withdrawal (Oliver, 2010). The information sheet was provided to all interested participants. Within the recruitment survey, participants gave consent for use of their survey data, and an explanation for inclusion of questions was provided where appropriate. Survey results were downloaded and stored using Microsoft Excel on the university server. Personal details such as name, address and contact details were required to arrange interviews. A week prior to the interview, each participant was sent another copy of the information sheet along with a consent form (APPENDIX D). These were also provided in hard copy and discussed at the start of the interview, with the opportunity for participants to ask

questions. Two paper copies of the consent form were then signed, with the participant and researcher each retaining a copy.

Due care was given to maintaining confidentiality through anonymity, so that data could not be traced back to the individual in any reports of the research, or through access to sensitive files (Punch, 2014). Each participant was allocated a participant number and pseudonym; given the small numbers of men amongst the participants, care was taken to ensure that all pseudonyms were gender-neutral. Any pseudonyms that were similar to the given names of any of the 2013 graduating cohort were avoided, so that contribution could not be falsely attributed to specific individuals. The transcripts identified the participants by pseudonym only, and the spreadsheet linking participants to number and pseudonym was password protected. All files were kept securely on the University server. Names of people, places and practices in transcripts were replaced with anonymising identifiers. However, as highlighted by Hammersley and Traianou, anonymity cannot always be guaranteed (Hammersley and Traianou, 2012, Walford, 2005), as those who know the participants may be able to infer their identity from other contextual clues such as specific situations or actions (Humphrey, 2012). This risk was highlighted verbally to participants who were encouraged (but not required) to avoid discussing the interview with others. To mitigate against this risk, during the writing process only minimal, aggregated demographic information was included relating to the identity of participants, and care was taken in selecting representative examples and quotes from the interviews.

All data were stored securely on the university server. Paper records were kept securely in a locked cupboard or office. Transcription was undertaken by a commercial transcription service contracted by the University of Bristol. All files were password-protected prior to emailing between the transcription company and the researcher; during the project the transcription company launched a secure web-based server for upload of audio and text files. For participants who requested to review the transcription of their interview, the file was protected with a separate password, which was sent to the participant either by text message or within a separate email. The emotional safety of the transcriber was also considered, flagging any interviews that contained potentially upsetting content. One interview, containing particularly sensitive information, was transcribed by the researcher.



It is acknowledged that qualitative interviews can, at times, stray into the realm of counselling, requiring attention to “ethics in practice” (Guillemin and Gillam, 2004) to ensure considered, reflexive decisions are made at the micro-level during the research process. There can be a temptation to provide advice to the participant, or perhaps for the researcher to share a personal anecdote with the risk of confusing the roles of interviewer and participant (Oliver, 2010). During the interviews care was taken to avoid these scenarios; where further advice was requested, usually regarding a clinical query within the researcher’s area of specialist interest, this was discussed informally after the interview was finished.

Considering concepts of harm and benefit to the wider profession (Punch, 2014), ethical responsibility to the profession for reflexivity in the reporting of findings was recognised, so as to identify challenges without undermining the RCVS or the PDP. The RCVS Code of Conduct states that:

Veterinary surgeons must not engage in any activity or behaviour that would be likely to bring the profession into disrepute or undermine public confidence in the profession (RCVS, 2017b)

This was addressed by engaging in informal discussions with the RCVS Education Committee and Post-Graduate Deans early in the study process, building a relationship of trust, and taking care to frame the outputs of the study constructively.

#### *4.6 Researcher positioning and reflexivity: insider-outsider perspectives*

It is important in qualitative research that researchers acknowledge their own position in relation to the research question and participants in the study, making “visible their individuality and its effects on the research process” (Gough, 2003), and maintaining “reflexive objectivity” relating to the potential for bias this creates (Brinkmann and Kvale, 2015, p. 278). I was positioned as an “insider-outsider” within the research (Dwyer and Buckle, 2009, Humphrey, 2012), having personally experienced the transition to practice twenty years previously, and worked with the participants during their training, but unfamiliar with the PDP and the current landscape and challenges of starting work in general practice. Through all stages of the study I strived for reflexivity:

“the recognition that the involvement of the researcher as an active participant in the research process shapes the nature of the process and the knowledge produced through it “ (King, 2004a, p. 20). Reflexivity requires the researcher to acknowledge and critically reflect upon the ways in which their own background, assumptions, positioning and behaviour impact on the research (Finlay and Gough, 2003). This section will describe how my own experiences affected my relationship with the research project generally and, more specifically, during data collection and analysis.

#### *4.6.1.1 My own experiences as a veterinary surgeon*

When I graduated as a veterinary surgeon in 1997, there was no formal requirement for post-qualification training beyond documenting 35 hours per year of continuing professional development. My own experiences of the transition to practice were positive, working in a large mixed practice with supportive employers and a trusted team of peers. Following four years in general practice, I trained to become a specialist practitioner, and subsequently started working as a clinical teacher at BigCity University. Through conversations with colleagues, reading the professional literature, and my clinical work with undergraduate students and recent graduates, I was aware of the potential challenges of the transition period, and some frustrations with the format of the PDP. As I gained increasing responsibility for the development and management of the undergraduate curriculum, my understanding of the challenges our graduates meet in the workplace became increasingly important to me, with a view to being able to prepare them better for that transition.

#### *4.6.1.2 Interviews and participants*

The participants had all worked with me during their final clinical training year at BigCity University. Positioning myself as a researcher who participants knew and, I hoped, trusted and considered credible, was considered likely to facilitate recruitment (Dwyer and Buckle, 2009, Silverman, 2013). In addition, the previous relationship with the participants helped provide a safe interview environment in which I could build rapport and participants felt able to share their stories (Punch, 2014).

During interviews I was careful to be critically aware of my own presuppositions relating to veterinary workplaces, avoiding leading questions and ensuring that I asked for clarification where necessary, minimising assumptions based on my own understanding of workplace dynamics (Unluer, 2012). I took care to avoid entering into a “problem-

solving” dialogue (Barker et al., 2002, p. 106), a natural tendency given my clinical experience in consulting rooms and my previous relationship with the participants. There was potential for an asymmetry of power within the interviews, in light of my role in the participants’ training (Humphrey, 2012, Brinkmann and Kvale, 2015). I was careful to engage with participants as fellow professionals, being respectful of the time taken to participate, providing refreshments, acknowledging their contribution with a follow-up email, and taking care with the setup of the interview space such that I was not physically seated in a position of power (e.g. on a higher chair). Developing my interview technique, I listened reflexively to the recordings of the interviews, for example overcoming an initial tendency to interrupt participants.

#### *4.6.1.3 Data analysis*

It is recognised that a qualitative interview can of itself, as a dynamic social process, be an intervention in the life of the participant (Nicolson, 2003), and during data analysis I was conscious of the interview itself instigating change in the participants’ understandings. I tried to account for the different meaning brought to and developed during the interviews, leading to shared understandings of events and experiences. I needed to take care to differentiate between descriptions of reflective actions taken at the time, and examples of reflective activity within the interview itself. For example, Oli, when discussing whether writing was helpful as part of their<sup>10</sup> reflective activity, said:

I suppose it gave me a bit of closure at that point....I’ve never really...realised this, by the way, until...yeah, yeah, might use that for later...I’ve only just realised the writing thing helps [laughs] (Oli, 8/6/16)

Using paper templates of the triangle heuristic during data analysis helped me maintain perspective on the overall activity system as the unit of analysis, and helped me to give a “voice” to the varied components of the activity system, noticing and constructing meaning from the dialectical tensions that emerged. I valued the triangle heuristic as “a direct result of the researcher’s dialogue with practice” (Sannino et al., 2009a, p. 13).

Various other aspects of my doctoral study and professional work overlapped with the analytical and writing processes. Since 2015, I have been part of a team involved in a

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<sup>10</sup> To avoid disclosing gender and enhance anonymity, “their” is used in place of “his/her”

systematic review of assessments tools for measuring the ability to self-reflect (Williams et al., 2015), reading many papers highlighting the challenges of positioning reflection as a measurable, individual activity. As part of a taught module early in 2017, I analysed the RCVS PDP Guidance using Critical Discourse Analysis, which later contributed to my understanding of conflict and contradiction within the system through an appreciation of, for example, the modality of written text (Fairclough, 2003). During the summer of 2017, I was part of an RCVS-funded project team evaluating the PDP at a national level (Flaxman et al., 2017). The findings from this study were not available until after I had completed my own data analysis; it was encouraging to observe that the findings from that project supported those of my own, smaller, study. I also had opportunities to engage in informal peer debriefing during facilitation of workshops on reflection and conferences, and during conversations with colleagues. Collectively, these experiences reinforced and informed my developing understanding of reflective activity as a social, collective pursuit.

#### *4.7 Critique of data collection and analysis methods*

##### *4.7.1 Data collection*

Several key challenges of research design relating to data collection were identified: a reliance on self-report interview data; practical issues relating to limiting participants to recent graduates from a single university rather than a wider range of voices; small sample size; and the lack of longitudinal data collection. Each is discussed below.

##### *4.7.1.1 Reliance on self-report interview data*

Reliance on self-report interview data had several limitations. Intervening events, and the interview process itself, may have influenced recollection and description of actions and subjective feelings. Participants, consciously or otherwise, may try to portray themselves in a positive manner (Cohen et al., 2007). Without subsequent changes in action, much reflective activity becomes meaningless (Dohn, 2011). However, self-report cannot confirm that outcomes have been achieved. For example, it is not possible to be certain whether reflective activity genuinely led to changes in behaviour and future action. Whilst outcomes-based curricula in healthcare make assumptions about the idealised outcomes of reflection, there is a lack of robust evidence that reflective activity enhances competence, changes practice, or improves patient care, with much reliance on self-report (Mann et al., 2009, Murdoch-Eaton and Sandars, 2014,

May and Kinnison, 2015). Additionally, consideration of affect relied on participants' recall of their actions and their own subjective feelings and perceptions of workplace mood; whilst this can be considered appropriate as a part of the individual's *perezhivanie*, it must be acknowledged as a limitation.

#### *4.7.1.2 Participants from a single university*

A key feature of CHAT is the attention paid to multiple voices within the system. I was aware that I was foregrounding the recent graduates' voices within this study. Whilst I was primarily interested in the participants' perceptions, understandings, and enactment of reflective activity, the voices of others could be identified through understanding the interview process as:

...a social setting for the proliferation of polyphonic dialogues, in which there are many voices and discourses that cross each other simultaneously to produce knowledge about personal narratives and social life. (Tanggaard, 2009, p. 1500)

The voice of the RCVS was also apparent through the documents accessed. To further enhance multivoicedness, I engaged in conversation within my personal and professional networks, gave presentations and facilitated workshops relating to reflective activity at national and international conferences, and met with the post-graduate deans at two of their bi-annual meetings, discussing the rationale for the project and initial findings. These opportunities for peer debriefing, noted in my research diary, gave me an awareness of the other voices within the system and modulated my interpretations and understandings of the data. Interviewing employers would have provided a different perspective on the activity system but was outwith the scope of the study, with ethical and sampling challenges associated with recruiting employer/employee dyads.

The advantages of recruiting participants from a single university have been outlined, as relating to minimising variability of experience (section 4.2.1) and the value of a trusting relationship between researcher and participants (section 4.6). However, it could be argued that this previous teacher-student relationship could make participants less willing to divulge information (Mertens, 2010). It is likely that any potential participants who may have felt that this was an issue did not respond to the recruitment campaign.

#### *4.7.1.3 Small sample size*

As discussed in 4.2.1, a relatively small number of participants was recruited, considered appropriate to the research questions and research design. In qualitative research, particularly when using single settings, generalisability is not an aim; rather, enough detail must be provided so that readers can understand what aspects of the findings might relate to their own contexts. Consistent with the social constructionist epistemology, the research does not aim to provide categorical truths, but rather to explore the experiences of a small number of individuals within small animal practice settings (Silverman, 2013).

#### *4.7.1.4 Lack of longitudinal data collection*

Many CHAT studies engage participants' in multiple interviews over a period of time (Engeström, 2005). The single point of data collection for each participant in the study was a potential limitation. Careful consideration was given to which cohort of graduates to recruit (4.2.1), and access to the participants' online PDRs helped ground the interviews in experience. However, additional data collection points, perhaps starting earlier in the post-qualification phase, may have yielded additional insights, particularly relating to how perceptions of situations changed as participants gained experience in the workplace.

#### *4.7.2 Data analysis*

Two main challenges were identified during data analysis: focusing on the unit of activity, and the limitations of the triangle heuristic.

##### *4.7.2.1 Focusing on the Unit of Activity*

Delineating the activity system during data analysis, using the principles described by Engeström (Engeström, 2001), was challenging at two levels. Firstly, within the data, care needed to be taken to distinguish reflective activity from neighbouring activity systems such as clinical practice, with the relationship between these activity systems shown in Figure 5-3 (p. 102). Secondly, as outlined in section 4.6.1.3, care was taken to distinguish between descriptions of previous reflective actions and novel reflective talk during the interview itself.

#### 4.7.2.2 *The triangle heuristic*

Repeatedly embedding the triangle heuristic within the analytic process ensured consideration of the overall system rather than an excessive focus on individuals constrained by context (Roth, 2014); it reinforced an understanding that any one component of the triangle heuristic requires consideration of all the other parts of the system that influence it. The triangle heuristic did not, however, lend itself to some aspects of analysis. Firstly, whilst identification of conflicts and contradictions was facilitated by using the heuristic, aspects of subjectivity did not have an obvious home. During initial analysis, aspects of subjectivity relating to affect and historicity were noted in the “subject” area of the heuristic, helping to foreground the agency of the subject (Blackler, 2009), an active agent (Daniels, 2016) operating “with-mediational-means” (Wertsch, 1991, p. 12). Secondly, the challenges of using a static heuristic to represent an intrinsically dynamic system (Roth, 2004) were exemplified by the challenges of analysing the relationship between goal-mediated actions and object-related activity, and cumulative development over a period of time. This was addressed by specifically analysing outcomes, identifying development at both levels of individual actions and cumulatively over time (Daniels, 2016).

### 4.8 *Chapter Summary*

This chapter has presented the methodological principles and framework which guided the research. The links between social constructionism as a research perspective, and CHAT as a research tradition, have been outlined, emphasising the shared roots in understanding activity as interactional, cultural and meaning-making. A qualitative research design has been outlined, enabling the gathering of rich data from fifteen participants, graduates of the 2013 cohort at BigCity University Veterinary School, who have experienced the system of reflective activity during the RCVS Professional Development Phase. Documentary data gave access to the voice of the RCVS, and provided opportunities for insight into the history and development of the PDP. The voices of participants were heard through semi-structured interviews, where care was taken to craft and pilot an interview guide that helped build a relationship of trust, so that at times challenging details of experiences were shared. The participants’ Professional Development Records were accessed to help ground the interviews in documented experience and support recall during the interviews. Interviews were audio-recorded and transcribed; additional notes were made immediately following

each interview. Data analysis required careful consideration of the boundaries of the activity system and its interactions with neighbouring systems of clinical practice, and the system of the research study itself. Following an initial period of dwelling in the data, three phases of data analysis took place. Firstly, the activity system was delineated using Engeström's triangle heuristic, comparing the system as described by the RCVS with that experienced by the participants. Next, aspects of subjectivity were explored through the lens of *perezhivanie*, relating to affect, historicity, continuity of experience, and expansive development. Finally, thematic analysis of conflicted actions was undertaken to identify contradictions within the system. At all stages, attention was paid to ethical considerations, with ethical approval obtained prior to the start of the study and informed consent obtained from all participants. Consideration of researcher positioning and reflexivity highlighted the advantages and challenges of the insider-outsider perspective. Critique of the research design reviewed the reliance on self-report data, inclusion criteria for participants, sample size, the lack of longitudinal data, the unit of analysis, and the triangle heuristic.

The findings of the study are presented in the next two chapters. Chapter 5 presents details of the context and study participants, followed by delineation and discussion of the activity system. Chapter 6 presents findings related to subjectivity and dialectical analysis.



## Chapter 5 CONSTRUCTING REFLECTIVE ACTIVITY

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Chapter 4 discussed the methodological approach and specific methods used for data collection and analysis. Chapter 5 is the first of two chapters presenting the findings from the study. The first part of the chapter sets out the context and background to the empirical setting for the study. The participants' undergraduate training at BigCity University is briefly described, followed by an introduction to the background and workplace contexts of the participants. Linking theoretical considerations with findings from data analysis, the remaining sections of the chapter present findings related to the first research question:

1. How is the system of reflective activity constructed during recently qualified veterinary surgeons' professional development phase?
  - a. What resources are used and how do they mediate reflective activity?
  - b. What is the role of interaction with others?
  - c. What are the outcomes of reflective activity?

First, the system of reflective activity during the PDP, as understood through analysis of RCVS documents, is delineated using Engeström's triangle heuristic. The activity system heuristic is then developed further by drawing on the experiences of the participants through analysis of interview transcripts. Finally, the role of reflective activity in the broader system of clinical practice is considered through exploration of the learning that occurs and the interaction of reflective activity with patient care. This chapter focuses on descriptive analysis; through consideration of subjectivities, conflicts and contradictions, more nuanced and critical analysis of the data is found in Chapter 6.

### *5.1 Being a newly qualified veterinary surgeon*

This section summarises the training that participants experienced at BigCity University, before introducing the participants in the study.

#### 5.1.1 Training to be a veterinary surgeon at BigCity University

BigCity University is a large UK university. In addition to the city centre campus, there is a second campus a few miles distant, where the veterinary school is located. The veterinary course, in common with other UK schools, is a five-year programme. The

2013 graduating cohort experienced a traditional curriculum, with a focus on basic science subjects in the first two years with increasingly clinical content in years 3 and 4. The lecture-free final year comprised clinical rotations in the veterinary school clinics, with students receiving written feedback and a grade at the end of each rotation. During the autumn of 2012, initiatives were introduced to improve feedback interactions during clinical rotations, highlighting the importance of feedback as dialogue, centred on what went well, areas for improvement, and an action plan (Warman et al., 2014). A professional studies curriculum had been recently introduced throughout the programme, and from academic year 2011-12 students were required to engage with completion of an online reflective portfolio each year. This cohort had experienced significant technical problems and frustrations with the introduction of the portfolios, which could be considered likely to influence their engagement in written reflective activities such as the PDR. Experiential training in communication skills had also been introduced in years 3 and 4 of the programme; each student, observed by a small group of their peers and a staff facilitator, participated in role-play scenarios, with actors playing the part of the client, followed by reflective discussion amongst the group. These role-plays, whilst daunting for students, represented the main formal opportunity for facilitated reflective discussion during undergraduate training. Additionally students completed extra-mural studies as required by the RCVS (see 1.1).

#### 5.1.2 Introducing the participants

The participants are introduced below (Table 5-1), indicating the number and types of jobs in which they had been employed since graduating. Each had graduated as part of the 2013 cohort from BigCity University. There were two men amongst the participants (reflecting the gender balance of the cohort); to enhance anonymity, each participant is identified by a gender-neutral pseudonym, and only limited workplace information is provided. Further explanation of the types of practice settings described is provided in section 1.2.

*Table 5-1 Participant details (J1 = 1<sup>st</sup> job; J2 = 2<sup>nd</sup> job; J3 = 3<sup>rd</sup> job)*

<b>Pseudonym</b>	<b>Details of practice settings</b>
Frankie	J1 internship in referral teaching hospital J2 locum positions in independent practices J3 research post
Leigh	J1 independent (5 branches, 12 vets) J2 corporate (1 site, 6 vets)
Jules	J1 hospital practice (main site with branches, 3-4 vets) J2 referral practice (1 site, 20 vets)
Kim	J1 independent practice (1 site, 3 vets) J2 independent practice (2 sites, 7 vets)
Cameron	J1 charity volunteer J2 hospital practice (13-14 vets) with branches J3 internship in teaching hospital
Eddie	J1 corporate practice (main site with branches, 4 vets) J2 locum positions for corporate J3 same corporate, different site (1 site, 4 vets)
Blair	J1 mixed independent practice (1 site, 4 vets) J2 internship in teaching hospital
Hayden	Independent practice (hospital and 2 branches, 14 vets)
Oli	Independent practice (hospital and 2 branches, 6 vets)
Vivian	Corporate practice (single site, 4 vets)
Georgie	J1 independent (hospital and 4 branches, 6 vets) J2 independent (hospital and 6 branches, 15 vets)
Ronnie	J1 mixed independent practice (hospital and 2 branches, 9 vets) J2 locum positions J3 corporate (hospital and 9 branches, 12 vets)
Andy	Independent practice (main site and 3 branches, 7 vets)
Max	J1 Mixed practice (main hospital and multiple branches, 13 vets) J2 (independent → corporate; main site and branch, 3 vets)
Stacey	J1 independent mixed (hospital and branch, 10 vets) J2 private referral practice (1 site, 40 vets) J3 locum positions

### 5.1.3 Summarising the context

An overview of the educational background of veterinary graduates from BigCity University has been presented, as they make the transition from undergraduate student to engaging in the Professional Development Phase in their workplaces. The technical challenges encountered using reflective portfolios during their undergraduate training are noted, along with the opportunities for engaging in reflective activity through communication skills role plays and clinical rotation feedback processes. The fifteen participants, all graduates of BigCity University, chose to work primarily in small animal practice following graduation, in a range of business models including independent,

corporate and referral settings. The range of workplace settings was roughly representative of the wider new graduate population (see Table 4-2, p. 65). Four of the participants had stayed in the same job since starting work; the others had sought different jobs either to develop their skills in a more specific direction (e.g. moving from mixed to small animal practice), or to find a more supportive practice.

Having introduced the context and the participants, the next sections explore how reflective activity is constructed during the PDP, firstly through analysis of RCVS documentation, and subsequently through analysis of interview data. Through developing an understanding of the system and comparing the system as described by the RCVS and experienced by participants, differences and potentials for conflict start to emerge. These conflicts are explored in more detail in Chapter 6.

## 5.2 *Constructing reflective activity during the PDP: the RCVS perspective*

Within this study, reflective activity is positioned as a key component of the RCVS professional development phase (PDP). Within the documentation available from the RCVS, for example the PDP guidelines available to the study cohort (RCVS, 2012b) and associated web-pages, the aims (or **object**) of the PDP itself are variably articulated (Table 5-2), with an overall purpose of supporting new graduates to develop their professional and clinical competences.

*Table 5-2 RCVS-described aims of the PDP*

Source	Aim
PDP Guidance (RCVS, 2012)	<p>“exists to help support new graduates as they begin their careers in clinical practice”. (p. 3)</p> <p>“...aims to instil a conscious and conscientious approach to professional learning.” (p. 3)</p> <p>“...seeks to encourage the new graduate to have a realistic view of their professional competence “ (p. 8)</p>
PDP Homepage (RCVS, 2015)	<p>“The aim of the PDP is to help newly qualified veterinary graduates make the transition from life as a veterinary student to working in clinical practice as a professional veterinary surgeon”</p>
PDP Homepage 2011 (accessed via <a href="https://archive.org/web">www.https://archive.org/web</a> )	<p>“The aim of the Professional Development Phase is to provide a structure whereby new graduates can continue to develop their professional and clinical skills, reflect on their progress and plan their future professional development.”</p>

The Guidance also draws on the more general expectation on veterinary professionals to reflect, as outlined in the Code of Professional Conduct (RCVS, 2017b):

In order to undertake the PDP effectively, the graduate must engage in a process of reflection, analysis and improvement in their professional practice.

This is echoed in the guidance on clinical governance that accompanies the *Code of Professional Conduct*. (RCVS, 2012b, p. 4)

Constructing reflective activity as essential to supporting the aims of the PDP, the object of the system of reflective activity during the PDP can be summarised as supporting new graduates' learning and development towards their Year One Competences. The activity system, as constructed through analysis of RCVS documentation, is shown in Figure 5-1.

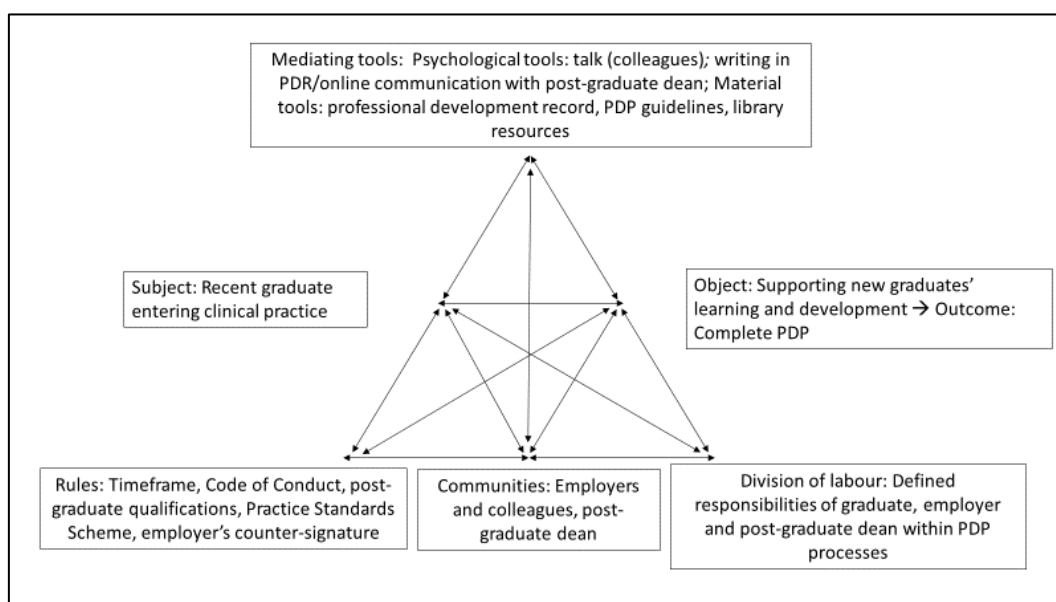


Figure 5-1 Reflective activity during the PDP, as constructed through analysis of RCVS data

A range of **mediating tools** is identified. The key tool provided by the RCVS is the online, password-protected recording tool (the Professional Development Record, PDR) (see 1.2.1), requiring graduates to record numbers of cases and procedures, rate their confidence in different domains of expertise, and reflect on their progression towards the required competences. Discussion with colleagues acting as mentors (i.e. discourse as mediating tool) is identified as key to effective engagement with the PDP. Additional tools which might serve as resources to support reflective activity include online

interaction with an RCVS Post-Graduate Dean and access to literature through discounted RCVS Library membership.

Within CHAT, **rules** relates to the formal and informal, tacit and explicit regulations and norms that govern activity. Whilst employers are not expected to assess the Year One Competences, the employer (or other senior colleague) is required to countersign the graduate's PDP declaration form to confirm that they have discussed the new graduate's progress towards the Year One Competences, and viewed their PDR. The importance of wider rules is highlighted by reference to the Code of Conduct for Veterinary Surgeons, a lengthy document which details the professional rules to which UK veterinary surgeons are held accountable. There is a requirement for completion of the PDP prior to registration for post-graduate qualifications, and, for practices accredited by the RCVS Practice Standards Scheme, documenting engagement with the PDP can provide evidence that relevant staff are up-to-date with their continuing professional development.

**Community** foregrounds the interpersonal plane and relationships within the workplace, highlighting a need for support from more senior colleagues to maximise the benefits of the PDP:

The PDP will be most successful where there is active collaboration between the new graduate and senior practice colleagues (RCVS, 2012b, p. 14)

It is suggested that the PDP can be integrated into broader workplace practices, used to inform and support clinical meetings, clinical governance and staff appraisal. At the institutional level, the new graduate is supported (online) by their Post-Graduate Dean.

**Division of labour** enables consideration of the different roles undertaken by people within the system, and aspects of power and hierarchy. The guidance clearly outlines the division of labour expected within the system: new graduates are responsible for registering on the system, completing the checklist and reflecting on their progress; employers/senior colleagues are expected to engage in discussion and support (ideally through an appraisal system and facilitating time/caseload for completion), and countersign the declaration; and the RCVS post-graduate dean monitors progress, provides guidance, and has responsibility for certifying completion of the PDP. It is

noteworthy that the language used within the guidance suggests that, whilst the RCVS requires new graduates to comply with the PDP requirements, the expectation on employers to provide support (beyond a requirement for a signature at the point of PDR submission) is negotiated rather than regulated. The graduate has control over who (besides the dean) can view aspects of their PDR, with an acknowledgement that they may not be comfortable with their employer reading their reflective notes. It is made clear that the dean cannot provide support with personal or employment issues, but can direct the graduate to other sources of information. Other aspects of division of labour relate to suggestions such as adjustment of rotas to ensure appropriate clinical exposure for the new graduate.

### *5.3 Constructing reflective activity: the participants' perspectives*

Thematic analysis of interview data (4.4.2.1) enabled an understanding of the perceived realities of reflective activity, as constructed by the participants from their own experiences, and often contrasting with the RCVS' perspective outlined above. To visualise the differences, the triangle heuristic was expanded to incorporate the participants' understandings of the activity system (Figure 5-2); it is this version of the activity system which formed the basis of ongoing analysis. Findings from analysis of interview data which were not alluded to in RCVS documents are shown in *italics* in Figure 5-2, and discussed further below.

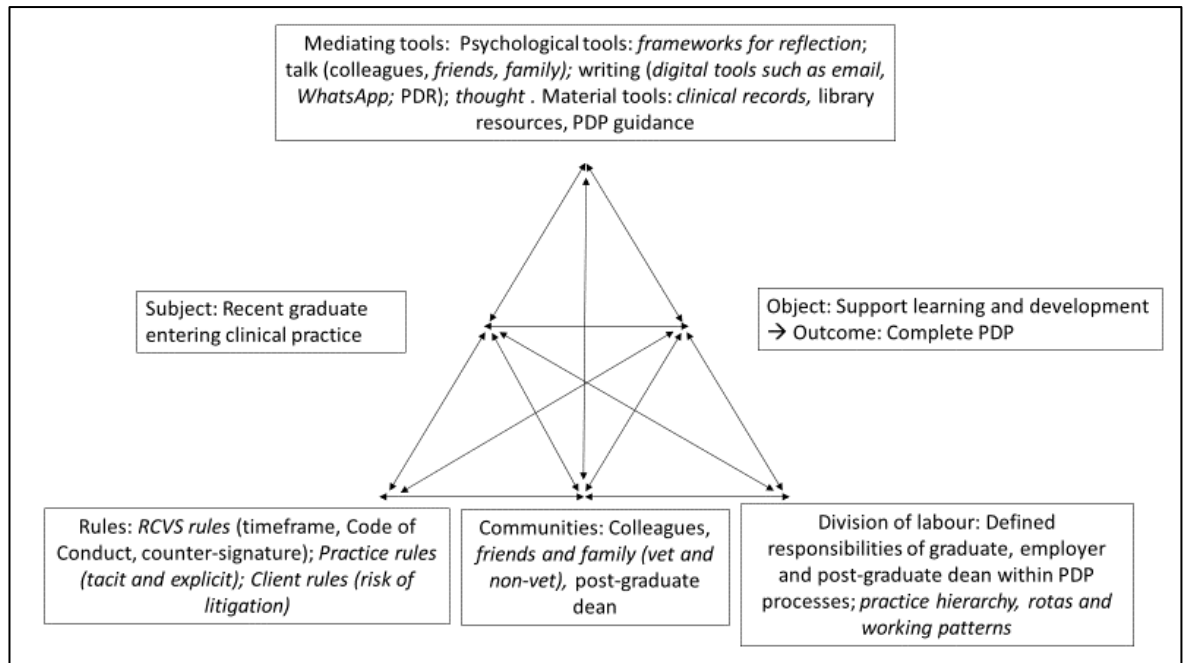


Figure 5-2 Reflective activity during the PDP: RCVS and participants' perspectives

### 5.3.1 Subjects and object

The participants, recently qualified veterinary surgeons in small animal practice, represent the subjects in the activity system. Aspects of subjectivity, and the ways in which these influenced, and were influenced by, their engagement in reflective activity are explored in Chapter 6.

As outlined in section 5.2, the object of the PDP, as described by the RCVS, can be summarised as supporting new graduates' learning and development towards their Year One Competences. Participants' perspectives relating to the object of the PDP were explored through analysing their responses to questions about their understanding of the term "reflection" and their perspectives on the value of reflection, and further supported by analysis of the goals of individual reflective actions as underpinning the object of the overarching activity system (discussed further in 5.4). Consistent with the aim of the PDP as articulated by the RCVS, it was apparent that participants also understood the object of reflective activity to be supporting their learning and development:



...reflection, I would think of as looking back on things I've done or cases that I've worked on and how I can learn from either mistakes or positives from that to move forwards. (Cameron, 31/5/16<sup>11</sup>).

Improving....I think, honestly, that is my only reason for me to reflect (Oli, 8/6/16).

Participants generally viewed their learning and development, supported by reflective activity, in a holistic manner; however completing the PDP (via completion of the online PDR) was viewed as a “tick-box” exercise, somewhat peripheral to their engagement in wider reflective activity:

I think it[reflection]'s really important, I think it's more important now than I thought at the time, I think that when I was doing my PDP, I felt like this was just a tick box exercise. (Stacey, 28/7/16).

### 5.3.2 Mediating tools for reflective actions

Basic frameworks for reflective activity introduced at university, such as identifying what went well and not so well, were used as psychological tools to understand reflective actions and drive development. A few participants specifically emphasised a concept of reflection as purposeful activity:

So it [reflection]'s a term for sort of defining the process of actively thinking about what you've done or what's happened and characterising what went well, what went badly, how you would like to do things differently in the future, how you would like to do better, and then try to come up with a way of getting there (Blair, 3/6/16)

Reflective activity was mediated through language, in the form of reflective actions including talk, thinking and writing. Participants varied widely in their preferences for different reflective actions.

*Talk* was usually informal and on a one-to-one basis with colleagues, family or friends, either in person or by telephone. This “constant chatter” (Hayden, 8/6/16) in the

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<sup>11</sup> Excerpts from interview transcripts are identified by participant pseudonym and interview date

workplace, when facilitated by community and division of labour, was highly valued by participants. Formal meetings such as appraisals usually focused on finance, and staff meetings were rarely prioritised by practice teams; consequently these were less valued as opportunities for reflection, despite the RCVS Guidance that the PDR could be used to support such activities.

*Written texts* took a variety of forms, at times drawing on material tools such as practice clinical record systems, the PDR, and proformas for formal staff reviews. The PDR itself was peripheral to the reflective activity of many of the participants (explored further in 6.3.2.2). Writing was most valued when employed as a medium for interaction with others, for example using digital interfaces such as WhatsApp, texting and email, or when a colleague discussed PDR entries. WhatsApp was used as a source of peer support (usually with groups of six to eight workmates or peers), with participants grateful for advice and reassurance from friends with a range of clinical interests, and appreciative of the convenience and flexibility of group communication afforded by the app:

...the ease at which I can just send a group WhatsApp to a group of contemporaneous colleagues who are in lots of different walks of life so you don't feel stupid for asking a question....you get the support of a lot of people who say I've no idea back, and actually that can be quite helpful sometimes because knowing that other people are equally stumped has probably been very supportive. (Frankie, 11/5/16)

Although the RCVS Guidance indicated that online interaction with the Post-Graduate Dean was available as “another source of advice and support” (RCVS, 2012b, p. 14), participants rarely accessed this support (see 5.3.4).

Written and online resources were also used to support reflection. These included textbooks, online journals and databases (with discounted RCVS library membership available during the PDP), and PDP supporting resources (e.g. PDP Guidance and webinar). A few participants used material tools such as journals, notebooks, or index cards to support their reflective activity.

Most participants described engaging in reflective *thought* on a regular basis, often during the drive home, whilst washing up, or in bed. Reflective thought was described by some at the level of *operation* as a tacit, automated process, that may need additional actions such as writing or talking to achieve goals (discussed further in 6.3.1.1):

I think a lot of reflection you'll do not quite subconsciously but you'll do without thinking about it (Eddie, 2/6/16)

If you think about it in your head you're sort of fairly rambling and just sort of think about it in your own way; if you have to write it down you have to formalise it into something a little bit more accessible and succinct maybe, which can be quite hard to do (Blair, 3/6/16)

If I speak to my friends about something I do feel better but I don't think that helps me put it at the back of my mind and completely get rid of it whereas writing it down for me is like an activity that I'm actively....it's really hard to explain...just trying to get it out of my mind basically (Cameron, 31/5/16)

### 5.3.3 Rules

Acknowledgement of rules was generally identified by acknowledgement of the “voice” of those with a position of authority: the RCVS, workplace management, and clients. Participants frequently described engagement with the PDR as a “tick-box” exercise, undertaken purely for the purposes of completing their PDP as a professional requirement, or to enable registration on post-graduate qualifications. Some participants’ writing in their PDR was guided by an understanding that the RCVS (personified by the post-graduate deans) expected to see evidence of reflection on competence:

It [the PDR] is something I had to do, so I wrote, just did it. I know, you know what they want, they want to see that you've reflected, so you just have to write that you have and what you'd do differently” (Leigh 13/5/16)

A variety of often tacit rules within *workplaces* was identified, all of which influenced the reflective activity and related feelings that participants experienced. Examples include an unwritten policy that the practice did not refer cases (Georgie), prioritising

relationships with other practices over individual concerns (Frankie), complex bureaucracy in larger institutions (Frankie, Cameron), and understandings that new graduates should “get on with it” (Viv, 16/6/16) or “toe the line” (Georgie, 16/6/16) (see 6.3.1.2). Additionally, the *client* voice pertaining to rules was apparent when participants expressed a fear of litigation influencing their reflective activity.

#### 5.3.4 Communities

Within the workplace, participants distinguished between colleagues (peers, senior vets, nurses and administrative staff) with whom they had a friendly, trusting relationship and those from whom there was a perceived lack of support or by whom they felt judged. The attitude of team members to reflective activity and/or the PDP impacted on the graduates’ motivation and support for reflection (see 6.3.1); where this support was available, it was highly valued:

I think that everybody should have a mentor to do it [the PDR] within the practice and there should be set time to do it (Cameron, 31/5/16).

However, for some participants this support was limited in value, with a lack of interest in the process by the employer: “my boss was not overly helpful with PDP so it was kind of get on with it on your own” (Kim, 25/5/16).

Each of the RCVS post-graduate deans oversees the PDP of several hundred graduates at any one time; communication between the dean and their graduates is via the online platform. Most participants had minimal interactions with their deans, usually in the form of occasional feedback on the content of their PDR, before the dean signed off the final version. This suggests a disconnect between the idealised and realised description of the support available from the RCVS (discussed further in 6.3.1.2):

...I was one of 100 students that she was looking after...and it made it feel really impersonal...it didn’t feel like a relationship at all. (Frankie, 11/5/16).

Many participants drew on support from beyond the workplace community as they engaged in reflective discussions. Many participants reached out to their social spheres, communicating with veterinary friends from outwith the workplace, and non-veterinary qualified friends and family. Clinical scenarios were often discussed with non-workplace

veterinary friends, often for advice or reassurance, in person, by telephone or via WhatsApp. For those in regular contact with their university veterinary peers, a shared history facilitated discussion of both clinical and affective challenges with a strong sense of trust and support. Several also relied on support from family and non-veterinary friends, particularly to gain new perspectives on managing non-clinical challenges:

...my boyfriend because...he just looks at it from a completely different perspective and helps me put it into the grand scheme of things (Stacey, 28/7/16)

Participants often differentiated between reflecting on clinical challenges, accessing colleagues and vet friends for support, and reflecting on more highly charged affective challenges, when friends and family were more able to provide support. This is discussed further in section 6.1.3.

#### 5.3.5 Division of labour

Whilst participants understood their own role in reflective activity, and within the formal PDP processes, the amount of support available or sought from others (such as colleagues and post-graduate dean) was very variable. Whilst some participants rarely worked alone, for others their rotas meant that support was often limited. For some, a hierarchical workplace culture, or a perception that senior colleagues did not value reflective activity, hindered engagement with collaborative reflective activity. Examples and discussion of conflicts created by such workplace management challenges can be found in section 6.3.1.3.

### 5.4 *Goal-oriented actions: Development from specific situations*

As outlined in sections 5.2 and 5.3.1, the object of reflective activity during the PDP is the support of new graduates' learning and development, with the outcome of completion of the PDP. Underpinning the overarching object-driven activity system are the reflective actions engaged in by participants. Reflective actions, defined as those undertaken in response to situations with the goal of developing greater understanding of the experience, self and others, included reflective thought, talk, writing and reading. Goals related to personal development of both technical and professional skills and, less commonly, collective workplace-level development. Examples of actions undertaken in response to particular situations are provided in Table 5-3, showing the development

that happened as a result of reflective actions. Each example includes a participant quote, contextualised by a brief description of the situation, goal, actions and development that occurred. Development relating to continuity of experience is discussed further in section 6.2.

Table 5-3 Examples of learning from specific situations

Quote	Situation	Goal	Action(s)	Development
<b>Personal technical skill-related development</b>				
I should always go back to basics, and think well if everything else has improved, why have we just got one area that's still not improving? (Hayden, 8/6/16)	Forgetting to perform a specific test, resulting in a missed diagnosis	Understanding why they missed the clues that would have led them to performing the test	Discussion with senior colleague; reading textbooks and internet resources	Identifying a gap in knowledge
<b>Personal professional skill-related development</b>				
I think it's that moment of acceptance when you realise that you can't help everyone and especially people who are so angry (Hayden, 8/6/16)	Dealing with an angry client following a suspected (but unlikely) adverse drug reaction	Understanding the client's anger and rationalising their response to it	Discussion with nurse and employer	Understanding that clients' reactions are unpredictable
There's me feeling a bit sorry for myself, oh this day was awful. And then it's like well actually, you could have taken control of this and okay, yeah, I actually should have. (Viv, 16/6/16)	Trying to undertake two people's workload when a colleague was unexpectedly absent	Gain sympathy from employer	Discussion with employer	Understand an aspect of their leadership role in supporting the team to reallocate work
I definitely learnt from it that I would trust my own instincts more (Cameron, 31/5/16)	Making a decision to perform surgery in dog with a possible foreign body with limited supporting evidence for the diagnosis	Understanding whether they should have done anything differently	Discussion with colleagues and family; later writing in PDR	Recognising that they can trust their own judgement
<b>Workplace-level development</b>				
We did have a conversation after that and make sure we had some propofol that was suitable...I managed to persuade them to get some in just as stock (Kim, 25/5/16)	Limited range of drugs available to treat a seizing patient	Help boss understand why a broader range of drugs are required	Writing in PDR; discussion with colleagues	Changes to drug purchasing policy

### *5.5 Linking reflective activity to clinical practice*

The above findings show examples of reflective actions and goals drawn from participants' interviews. The situations that triggered reflective activity were part of the related activity system of clinical practice, and it is appropriate to consider how these activity systems interact with one another. It becomes possible to view the system of reflective activity during the Professional Development Phase as both an activity system supporting the development of new graduates, and a mediating resource for supporting change in other activity systems such as clinical practice. Figure 5-3 demonstrates the activity system of reflective activity in the PDP, and its interaction with the activity system of clinical practice. It highlights how experiences in clinical practice can trigger reflective activity, how outcomes of reflective activity can improve clinical practice, and the potential for conflicts and contradictions between the systems.



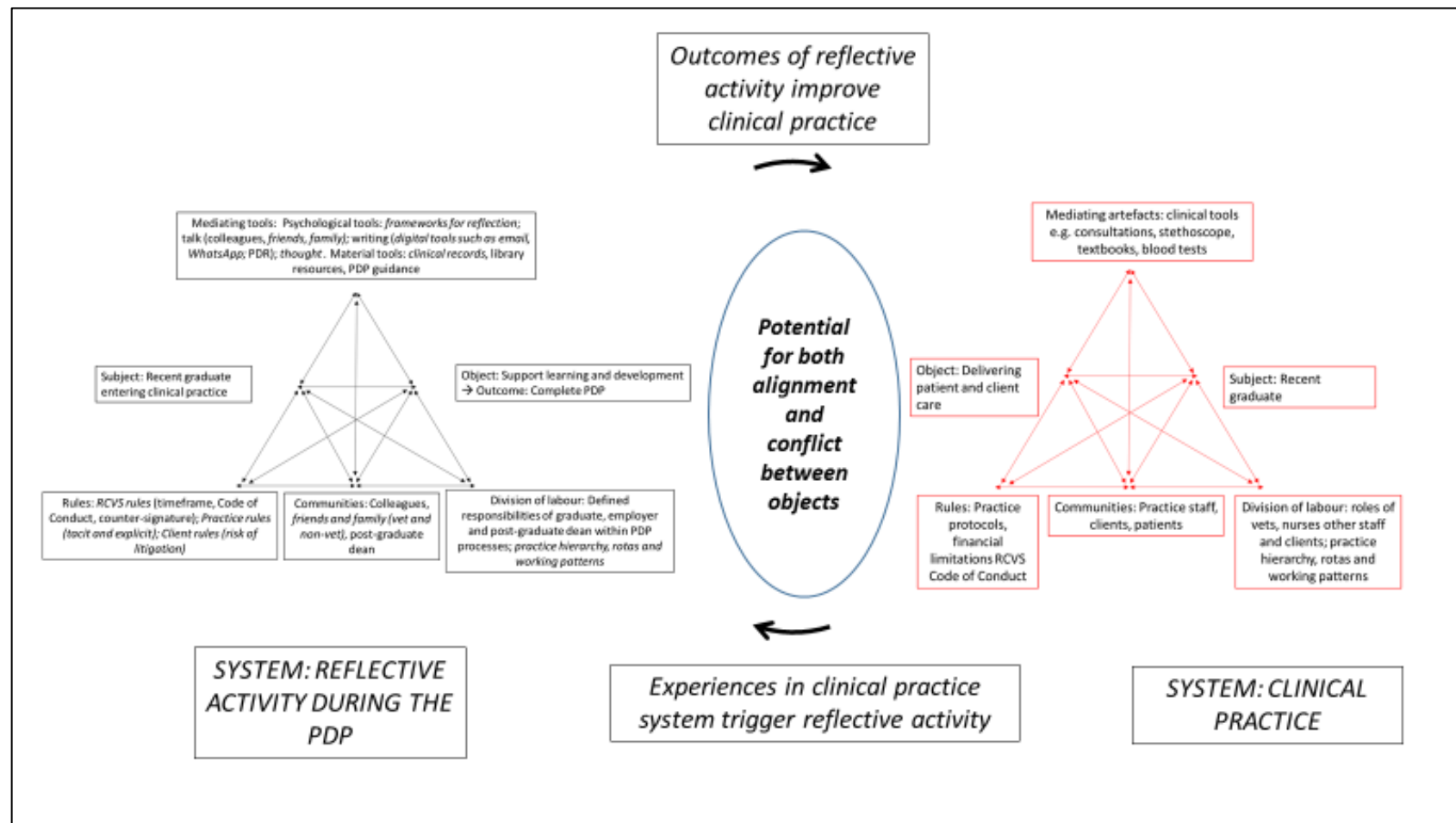


Figure 5-3 Potential interactions between systems of reflective activity during the PDP and clinical practice

## *5.6 Chapter Summary*

Chapter 5 started by describing the training experienced by participants at BigCity University, highlighting that relating to reflective activity. The fifteen participants were introduced, balancing the amount of detail provided with the need to enhance anonymity. All participants were members of the 2013 graduating cohort from BigCity University, working primarily in small animal practice since qualification. The system of reflective activity during the PDP, as constructed through analysis of RCVS documentation, was then presented. The aim of the PDP is to support new graduates to develop their professional and clinical competences; reflective activity is constructed as integral to achieving this aim. The system foregrounds an expectation of support from colleagues and the integration of reflective activity into working life. The roles and responsibilities of graduates, employers and RCVS post-graduate deans are clearly defined.

Findings from analysis of data from interview transcripts has then been presented, enabling extension of the triangle heuristic to incorporate the realities of reflective activity from the perspective of the participants. Differences are highlighted; the conflicts and contradictions arising from these are explored further in Chapter 6. The importance of language as a mediator of reflective activity has been reinforced, through actions such as talk, writing and thought. In addition to the resources outlined by the RCVS, participants accessed support from friends and family, and used digital media such as WhatsApp as part of their reflective activity. Engagement with the online record (PDR) and post-graduate deans was a peripheral part of reflective activity for many participants.

Thematic analysis of the learning which occurred as a consequence of reflecting on particular situations has been presented, with examples provided of learning at both individual and workplace levels. Finally, reflective activity has been positioned as networked with the activity system of clinical practice. In chapter 6, aspects of subjectivity will be explored, and conflicts and contradictions within the system identified.

## Chapter 6 PEREZHIVANIE, CONFLICTS AND CONTRADICTIONS

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The previous chapter presented findings relating to the way in which reflective activity is constructed during the professional development phase. In Chapter 6 findings are presented relating to the second and third research questions:

2. What roles do affect and experience play in brokering and motivating reflective activity?
3. What conflicts and contradictions are experienced when engaging in reflective activity during the professional development phase, and how do these impact on the outcome of reflective activity?

First, affect and experience, as aspects of subjectivity, are considered through the lens of perezhivanie. The findings from dialectic analysis of conflicts experienced within the system are then presented in two overarching themes: the need for support, and formalising the informal.

### 6.1 *Perezhivanie: integrating affect and activity*

Central to conceptualising perezhivanie as experiencing (see 3.4) is an understanding of the role of affect within the system of reflective activity. During the interviews, participants were encouraged to recall their feelings around the situations they chose to describe. Analysis of the interview transcripts enabled exploration of subjective feelings that were perceived to trigger reflective actions. Drawing on Roth's framing of the affective dimensions of workplace activity (Roth, 2007a) (see 3.4.2.2), the influence of affective valence, tacit aspects of affect, and perceptions of workplace mood on reflective activity were explored. Through analysis, an additional theme emerged relating to the participants' differing approaches to reflecting on affective compared to clinical aspects of situations. Each is discussed below.

#### 6.1.1 Subjective feelings as triggers for reflective actions

Participants described a wide range of feelings which had arisen in response to particular situations and triggered their engagement in reflective actions. Whilst the participants may not have been aware of the significance of these feelings at the time of the event, during interviews they were able to recall the affective experience that led them to recognise that a situation warranted further exploration through reflective actions. Feelings that triggered reflective actions ranged from unpleasant ones such as

anger, frustration, upset, apprehension, guilt or helplessness, through to more positive feelings such as surprise or unexpected satisfaction with a good clinical outcome. Examples are given below, linking the quotes related to feeling to the actions engaged in by the participant.

Whilst frustration was sometimes directed at self (for example when a participant felt they had fallen short of their own expectations), frustration and sadness were often directed at the client or wider circumstances. The limitations imposed by client finances could be upsetting:

Sad, very sad, I like almost cried...they were just so distraught and it was upsetting...but they were worried about costs (Andy, 28/6/16; *triggered reflective writing in clinical records and PDR, and reflective talk with colleagues and partner*)

Feelings of apprehension or worry were commonly described by participants when they faced a situation for the first time:

As the case unfolded I felt uneasy, apprehensive, about not knowing truly what was wrong with this dog... (Cameron, 31/5/16; *triggered reflective talk with colleagues and family and much later reflective writing in PDR*)

A sense of helplessness was apparent where participants felt unsupported or out of their depth, for example when Viv, unexpectedly working in sole charge and trying to deal with two people's workstreams, experienced a power-cut mid-surgery:

I don't mind pressure, I think all of us probably cope with pressure as vets, but I mean that was just extreme stress, out of my depth, what have I done, what am I doing, this can't be happening...(Viv, 16/6/16; *triggered reflective talk with colleagues*)

Several participants expressed a sense of guilt when patient or client outcomes were poor, feeling that they'd let down clients or animals:

I felt like completely to blame, although I'd you know sought advice and people had agreed with me (Cameron, 31/5/16; *triggered reflective talk with colleagues and family*)

More positive feelings were occasionally described as triggering reflective actions, such as a sense of satisfaction:

...when I'm aware that something I've struggled with has gone well, then I'll, yeah, sort of reflect that oh actually, that went quite well, good. (Blair, 3/6/16; *generally triggering reflective thought*)

These wide-ranging feelings helped participants to recognise that a situation was out of the ordinary, prompting them to engage in reflective actions such as talk, thought or writing. The next section explores how affect influenced participants' choices relating to reflective actions.

#### 6.1.2 Affect and action

Three aspects of affect (Roth, 2007a) influenced the choices participants made in their engagement in reflective actions (see 3.4.2.2): affective valence, tacit (or background) aspects of affect, and perceptions of workplace mood (an aspect of workplace culture). Each is discussed in turn.

##### 6.1.2.1 *Affective valence*

Affective valence relates to anticipation of affective payoffs, ranging from negative through positive, associated with actions. Reflective writing was perceived by some as "tedious" (Blair, 3/6/16), who preferred thinking or discussing with colleagues:

I don't like doing it [writing] because I think normally I am only writing down what I've already thought about (Blair, 3/6/16)

A fear of judgement by others could lead to avoidance of reflective writing and discussion:

With my peers I feel there's an element where they may judge me (Cameron, 31/5/16)

Very occasionally, the strength of feelings associated with a situation meant that the participant chose not to engage in any reflective actions, anticipating further unpleasant affective experience through reflecting on the situation:

I don't avoid reflecting unless it's just too emotional (Stacey, 28/7/16)

In contrast, participants described situations where anticipation of positive feelings was associated with a reflective action. Purposefully reflecting on successful outcomes (for example through thinking, discussion or posting on workplace Facebook pages) could be expected to lead to satisfaction and pride; choosing to engage in reflective talk with supportive, trusted colleagues or family members was expected to lead to reassurance. Leigh described choosing to communicate with a group of peers on WhatsApp:

So, if you've had a bad day and something has gone wrong, you can say oh, I've done this today and they'll be like, oh don't worry, I've done this like, so it's just a, makes you feel a little bit better (Leigh, 13/5/16)

Additionally, participants described selecting actions that they anticipated would help drive change, i.e. support purposeful reflection, for example engaging in reflective writing to help bring closure to a persistent worry (and see 6.3.1.1):

...getting the words down out of your head helps....getting them on paper in a logical order, I think that helps. (Eddie, 2/6/16)

Affective valence influenced the choices that participants made within their reflective activity. Whilst participants were, unsurprisingly, more likely to engage with reflective actions with a positive affective valence, opportunities for purposeful reflection may have been missed through avoidance of more challenging reflective actions such as writing, or discussion with a more critical colleague. The next section explores the influence of tacit aspects of affect on reflective activity.

#### *6.1.2.2 Tacit aspects of affect*

Tacit aspects of affect are the unconscious background feelings that condition operations, and can be considered from different temporal perspectives. Several participants identified a short-term sense of panic or "brain overload" (Kim, 25/5/16)

which they had to overcome to reflect purposefully and resolve the situation. Many participants described how their affective state when excessively tired limited their ability to engage in reflective activity. Others described how being unhappy in their job, a feeling constructed over a period of months, affected their engagement in reflective activity:

I think that it [the PDR] was very useful and I didn't see that at the time because I was not that happy in the job, but I do think it was useful to me in the long run (Cameron, 31/5/16).

Longer-term tacit aspects of affect can have a profound impact on the individuals' experiences and engagement in activity. Georgie described how chronic tiredness and deteriorating mental and physical health acted as barriers to purposeful reflective activity:

... I was in such a bad place, I just took that case far too personally...I was completely absorbed by it. I couldn't learn; I couldn't appreciate the learning that I did, or the positives of what I did, because I was absorbed by the fact that I felt I failed that dog. (Georgie, 16/6/16)

It is important to acknowledge that an individuals' tacit feelings are influenced by, and contribute to, aspects of workplace mood, discussed in the next section.

#### *6.1.2.3 Workplace mood*

Workplace mood, contributing to the culture of the workplace, appeared able to influence tacit feelings and engagement with reflective activity, reflecting the experiences of the "person-in-environment" (see 3.4.2.2). A supportive, upbeat workplace mood, often describing colleagues as friends or a team, encouraged participants to engage in reflective discussions:

I just think, oh I will just pop out and go and ask my friend something, so it's not that big formal thing that I have to go and seek help, we do it all the time, we are constantly bringing patients out and go "what do you think of this"? (Hayden, 8/6/16)

Others recognised the value of reflection for the community within the workplace, and that the community itself was engaged in the process:

If I was to reflect on something and think, well I should have done this differently, or maybe we should have done this different...then bringing that up amongst the vet team would be fine, a good thing to do, it would be an accepted thing to do. (Andy, 28/6/16)

Conversely, discontent in the workplace affected collective engagement with reflective activity and influenced participants' tacit affective state. Kim described their first workplace as somewhere the dynamics between employers and staff meant that:

...the sort of social emotional support was somewhat lacking and it was not a happy practice. Very few of the staff were happy there anyway so it was quite a stressful place to go to work...I came pretty close to quitting the profession" (Kim, 25/5/16).

Eventually, Kim moved to a different practice where "we're quite good at talking to each other and using the experience of the more experienced vets" (Kim, 25/5/16). Other participants perceived a "blame culture" (Ronnie, 22/6/16) or challenges related to hierarchy:

...it was kind of well-known amongst the interns that that was the attitude towards us – that we were automatically wrong. (Frankie, 11/5/16)

The impact of workplace mood on a participant's motivation and sense of security in selecting reflective actions is best summarised by Max, comparing two different workplaces:

You are part of the machinery, get on with it, whereas here you are part of the family, which is nice. (Max, 30/6/16)

The challenges posed by workplace mood and other aspects of workplace culture which hindered purposeful reflection are discussed further in section 6.3.1.3. The next section



explores an additional theme that emerged during analysis of affective aspects of reflective activity.

### 6.1.3 Different actions for different challenges

Through *perezhivanie*, it is understood that all reflective activity integrates affect and action, yet for many participants there was a distinction between clinical (i.e. primarily intellectual) challenges, and affective challenges, which influenced their choice of reflective actions. Some participants articulated this distinction during the interview:

I think there are two different types of reflection...one is more of a personal thing, one is more reflective on the [clinical] case. (Hayden, 8/6/16)

For other participants, the distinction emerged through analysis of their reflective actions following primarily clinical or affective challenges. Through analysis of these reflective actions, three differentiating features were identified: the *goal* of the reflective action, *what* reflective action was undertaken, and *with whom*. For example, when feeling upset following a challenging euthanasia consultation, Jules spoke to colleagues for reassurance that the situation had been dealt with appropriately, but found conversations with a parent more valuable for exploring feelings:

...colleagues were very much kind of like to the point [about the situation]...but my mum was more interested in how it made me feel and more “that must have been really scary for you” (Jules, 24/5/16)

When reflecting on *clinical aspects*, the goal of reflective actions (e.g. reading books, writing notes, or discussing with colleagues) was usually to enhance understanding of the case and identify a plan of action, in order not only to learn, but also to directly influence the neighbouring activity system of patient care. Actions could be triggered by feelings such as frustration, uncertainty or curiosity. Whilst there was anticipation of positive affective valence associated with clinical discussion, facilitated by positive tacit feelings and workplace mood, the goal was to resolve a clinical rather than affective dilemma. Most participants preferred to discuss such challenges with more experienced colleagues, either within the practice or externally; some had strong networks of peers with different clinical interests who communicated via WhatsApp; others described how writing their clinical notes helped organise their thoughts:

...you almost do reflect as you write...I definitely found writing the [clinical] notes helpful because it just puts it concisely in your head (Viv, 16/6/16)

During interviews, participants frequently described the goal of reflective actions relating to *affective aspects* of situations as seeking reassurance or achieving closure on their worries and concerns. Actions were triggered by a range of intensity of feelings, including more extreme feelings such as helplessness or guilt. Most participants preferred to talk when reflecting on feelings; whilst some participants felt able to engage their colleagues in discussion, many discussed feelings with close family, friends and partners. In contrast to reflecting on clinical dilemmas, it was not essential that the people with whom they reflected had veterinary knowledge; several found the different perspectives that non-veterinary friends and family were able to provide helpful:

When it comes to stressful situations I am probably more likely to talk to my boyfriend about that because he is not a vet and so he is quite detached in that respect and offers quite a good perspective, and you know if he thinks there is something alarming he will tell me, if he thinks I am over-reacting he will tell me. (Stacey, 28/7/16)

... whilst others appreciated the shared experience and histories of their university peers:

I think it makes you feel like you're not alone in that situation, which I think is why ...similar-aged vets are much better than speaking to your boyfriend or your parents because they understand a lot more how some things makes you feel....I think offloading and talking can help put closure on something. (Ronnie, 22/6/16)

For some, reflecting on affective challenges was an internal, thinking process whereas clinical reflection involved discussion with colleagues. For others, reflective writing in their PDR or personal journals provided an opportunity to focus on feelings in the context of a clinical case, beyond that afforded by writing clinical notes.

Exploring the ways in which affect influences reflective activity highlights the importance of a supportive culture, discussed further in 6.3.1. The next section considers how continuity of experience played a role in reflective activity.

## 6.2 *Perezhivanie: continuity of experience*

In this section, findings related to continuity of experience are presented. First, the influence of prior experiences during undergraduate training is highlighted, followed by analysis of the development that arose through continuity of experience. Examples of expansive development are discussed in section 6.3.3.

### 6.2.1 Prior experiences

For the individual, prior experience of reflective activities at university, previous work experience, family and health influenced reflective activity. University training had normalised but also formalised reflection, which for some had led to disengagement with formal reflective processes such as the PDR. Evidence of the normalisation of reflection was apparent in the frameworks articulated by the students when defining their understanding of reflection (see 5.3) and in acknowledgement of university experiences, such as communication skills training with actors, shaping understanding of reflective activity. Yearly reflective portfolio writing tasks at university, whilst normalising reflective activity, had been perceived as tedious or unhelpful by some, resulting in negative affective valence associated with formal reflective writing in the PDR. In contrast, Blair and Max had found the university portfolios to be valuable in creating opportunities to reflect on their progress, and Max had brought this positive affective valence of reflective writing to bear with a high level of engagement with the PDR:

It [the PDR] gave me more ambition, a bit more structure...it gave me tasks that I wanted to complete and so it structured my clinical work because I was seeking them out that I could tick them off, but also it gave me satisfaction that when you were ticking a lot off that you were in line with your peers as well, so it gave you something to work for and also reassurance that you were where you should be.

(Max, 30/6/16)

There was also an influence of shared experiences; peer groups had a shared history through their university training, often as housemates, and in frequent contact following graduation through WhatsApp or weekend gatherings. This shared experience led to a sense of trust and mutual support, despite a relative lack of experience compared to more senior colleagues.

Participants' undergraduate work experience played a role by extending the community which they could access for reflective discussion, for example contacting specialists for clinical advice. However, over-familiarity with the practice community due to previous placements in the practice could impact negatively on the support provided:

They just saw me as part of the furniture anyway and just assumed that I could get on with it and didn't need that extra bit of help. And when I asked for help it was a bit like, no you'll be fine don't worry, and I'm like no seriously like, I could really do with a bit of assistance here. (Jules, 24/5/16)

Family and health factors also played a role. For example, one participant who had suffered a close family bereavement not long before graduating acknowledged that they generally avoided reflecting on challenging feelings for fear of opening an affective "black box"; another who had experienced significant health challenges during university felt they carried this experience as "baggage" into both clinical and reflective activity<sup>12</sup>.

Perezhivanie is the sum of an individual's previous lived experiences, arising from the relationship between the individual and the environment. Analysis of these prior experiences provides examples of how perezhivanie contributes to subsequent experiencing of reflective activity during the PDP, shaping engagement in reflective actions. The next section analyses the continuity of experience during the PDP.

#### 6.2.2 Continuity of experience post-qualification

In addition to the immediate development that happened through reflecting on specific situations (see 5.4), aspects of development can be viewed longitudinally, integrating learning from multiple experiences, and influenced by the relationships between the individual and the environment.

Participants described the cumulative impact of reflective activity on their professional and personal development; it "all adds up to helping learn how you deal with those things" (Andy, 28/6/16), and is essential for gaining confidence in skills and decisions:

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<sup>12</sup> To enhance anonymity, participants' pseudonyms are not provided here

...as a new grad I would have just sat back and gone, okay that's how we do it. Whereas now, I've got more of an opinion about what I've seen works well and what I've seen doesn't work well. (Ronnie, 22/6/16)

Support from colleagues, analysed further in section 6.3.1, played an important role in longitudinal development, emphasising the experiences of the person-in-the-environment. This was highlighted when participants described becoming more able to deal with affective aspects of situations as they gained more experience:

I think it is more clinical nowadays rather than at the beginning it probably would have been more confidence and emotional and those kind of things I would have reflected on. Nowadays it is much more clinical. (Eddie, 2/6/16)

...I needed the emotional support then – I don't necessarily really need it now (Jules, 24/5/16)

Perhaps linked to this reduced need for reflecting on affective challenges over time, participants who described themselves as “worriers” (worrying about a situation rather than engaging in purposeful reflective activity, see 6.3.1.1), recognised that excessive worry was more likely to happen earlier in the new graduate's career, and that with experience came less of a tendency to worry about cases.

I definitely when I started used to be wondering how my patient was a week down the line, or still thinking about a case that I'd seen months ago, whereas now if I discharged it and I was happy with it at the time of discharge, I forget about it. (Frankie, 11/5/16)

Perezhivanie, linking affect with action and exploring continuity of experience, highlights the importance of subjectivity within the wider system. In the next section, conflicts experienced by participants are explored, arising from contradictions within the system.

### *6.3 Identification of conflicts and contradictions*

Analysis of data identified conflicted actions relating to system-level contradictions (Figure 6-1, p. 115), grouped within two overarching themes (see Figure 4-4, p. 75): the

need for support (contradictions 1a-1c) and formalising the informal (2a-2c). Each of these themes, and associated sub-themes, is discussed below.

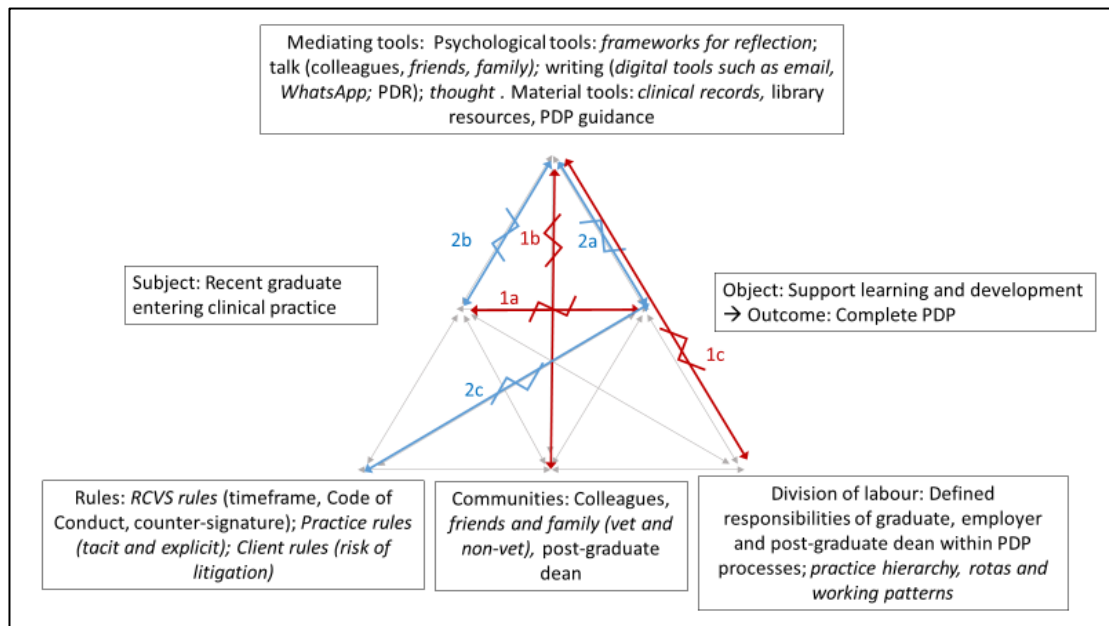


Figure 6-1 A triangle heuristic summarising the system level contradictions identified through analysis of conflicted actions

### 6.3.1 The need for support

The key role of supportive colleagues was summarised by Hayden:

It's having a network of vets especially who also are open to reflection and open to case discussion, because I think like if I didn't have the friends that I have here...I feel that I would probably be a very different vet than what I am now...I think it does matter how much support you get and I think it does help sort of form the vet that you become really (Hayden, 8/6/16)

Constructing reflection as social rather than individual activity enabled identification of three contradictions relating to the importance of support from others: the need for social mediation to convert worry to purposeful reflection (contradiction 1a); perceived attributes of actors within the system inhibiting reflective activity (contradiction 1b); and workplace culture limiting access to resources (contradiction 1c). Each of these contradictions is discussed in turn.

#### 6.3.1.1 *Converting worry into goal-driven reflective action*

Firstly (contradiction 1a; subject:object), many of the participants identified themselves as “worriers”, with a tendency to be over-critical of themselves:

I’m a worrier...I’d worry about it and then it would get pent up inside and I’d just worry about it lots (Eddie, 2/6/16)

Whilst this worry was often articulated as an operational aspect of reflective activity, there was conflict between this and the object of reflective activity. Several recognised that excessive worry, without a clear goal of purposeful reflection, was unhelpful:

You know, you can worry too much. I think that can be detrimental. (Cameron, 31/5/16)

Constructing reflective activity as socially-mediated highlighted the importance of purposeful thinking, writing and talking in converting internal worry (experienced as both a feeling and an action by the subject) into object-driven, social activity. Talking to colleagues or family/friends enabled better understanding of how to deal with a situation from others’ experience, alternative perspectives, or an opportunity for “off-loading” (Ronnie, 22/6/16), to provide closure or reassurance:

I do find that I sometimes overthink a lot of cases and then I mention it to the vets and they are like, “Oh why are you worried about that, it will be fine”. (Hayden, 8/6/16)

For some, although they may not have appreciated the value at the time, writing also provided an opportunity to convert worry into purposeful reflective activity, at times leading to enhanced clarification of issues and speeding up decision-making, for example, Eddie’s decision to look for a new job:

...seeing it in black and white. You go, “that’s really bad”. (Eddie, 2/6/16)

Continuity of experience seemed to help participants develop strategies for engaging in goal-oriented actions with positive affective valence within the system, which enabled them to convert worry into purposeful reflection. Whilst this reflects the personal

agency of the individual, it also reflects the social and cultural opportunities available to them within their context, contradictions arising from which are discussed in the next sections.

#### *6.3.1.2 Perceived attributes of others in the system*

Perceived attributes of individuals within the community (colleagues, family/friends, and the RCVS/post-graduate dean) impacted on the availability and value of discussion as a mediating tool (contradiction 1b; community:tool). Participants' decision making relating to choices of reflective actions shaped, and was shaped by, their experiences and perceptions of the attributes of others and the role others could play in mediating reflective activity. Whilst the lack of direct access to the voices of more experienced colleagues in the study must be acknowledged, these perceptions, accurate or otherwise, contributed to the participants' *perezhivanie*.

A trusted mentor (employer or near-peer) with whom challenges could be discussed in a non-judgemental fashion was a highly valued resource (see 5.3.4). However, for some, reflective discussion was actively inhibited, as members of the community appeared reluctant to engage in reflective discussion:

In my first job I felt a bit of a hindrance. I mean there were certain people you could go to but everybody went to them rather than the person they should be going to basically, the clinical lead wasn't very nice (Max, 30/6/16 )

Frequently, there was no specifically assigned mentor, with the employer signing the declaration at the point of submission despite very limited input into the process, in conflict with the PDP Guidance: "He didn't even know what he was signing" (Leigh, 13/5/16). There was a perception that the different histories and experiences of older vets compared to recent graduates meant that older vets could be sceptical of reflective activity:

...they [the bosses] became quite stuck in their ways...it would be good for them to reflect and I think that they probably hadn't, they are not used to reflecting, they haven't had to do any PDP or anything like that, so I think they would benefit from being more introduced to this, but then again I think a lot of them



would probably have a negative opinion about it and probably wouldn't commit to it. (Stacey, 28/7/16)

For some, a perception that their more senior colleagues did not consider reflecting on feelings to be a priority influenced their own reflective activity:

...in those days, I would have thought that if I got emotional it would have made me a bad vet. So it was kind of not showing it to anyone.... There wasn't much emotional support because the two senior colleagues were men and sometimes I think they can be like oh yeah I'm fine even if they're feeling emotional themselves...The main lead guy was like well it was tough and rubbish in my day so it should be tough and rubbish in your day too. (Eddie, 2/6/16)

Perceived attributes of family and friends impacted on their value as a resource for discussion. Some participants shaped their discussions with family to avoid causing upset or worry; others commented that family and non-veterinary friends didn't understand the challenges: "with my partner it mostly goes over his head so he does the sort of classic nod and smile" (Kim, 25/5/16). Whilst this different perspective was valued in some situations, in clinical discussions it was an obvious limitation.

The structure of the online system normally used for communicating with the post-graduate deans, rather than direct personal contact via email or telephone, also created conflict (5.3.4). Whilst the PDP Guidance foregrounds the supportive role of the post-graduate deans, the high ratio of graduates to deans meant that it was rare for a meaningful relationship to develop. The online system through which all communication took place was slow and impersonal: "It all comes through some sort of central server and it's full of really formulaic language." (Frankie, 11/5/16).

Individuals' perceived attributes, such as lack of interest or knowledge, limited their role as mediators of reflective actions for participants. Perceptions of individual attributes influenced perceptions of wider workplace cultures, discussed in the next section.

#### *6.3.1.3 Workplace culture*

This theme brings together contradictions which arose as a result of aspects of workplace cultures limiting access to resources (contradiction 1c: division of

labour:tools). Conflict was experienced relating to hierarchy and trust, working patterns restricting access to resources, and differences between processes outlined in the RCVS PDP Guidance and the reality of workplace practices.

#### 6.3.1.3.1 Hierarchy and trust

Perceptions of an unsupportive workplace culture, related to perceptions of workplace mood (see 6.1.2.3), suggested a lack of a shared understanding of the purpose of reflective activity, and highlighted concerns related to hierarchy and trust. Whilst for some participants, formal practice meetings were an opportunity for purposeful, supportive discussions leading to change in practice procedures, these meetings were devalued for others by a “blame culture” (Ronnie, 22/6/16) and a lack of trust, with less likelihood of purposeful discussion leading to individual or collective learning. For some, hierarchy created conflict, with reflective discussion inhibited when practice culture led to new graduates’ perceiving that they should do as they are told by senior colleagues. New graduates were expected to “toe the line” (Georgie, 16/6/16) or “just got to get on with it” (Viv, 16/6/16), with graduates then inhibited from engaging their colleagues in reflective discussions.

The importance of a supportive workplace culture facilitating reflective discussion was highlighted by those with experience of different extremes in different roles:

He [boss in first job] says “you do it like this” and there was a feeling in that practice that said “it’s my practice, and your reputation is my reputation and you do what I say”...I end up reflecting more here [in second job] because I think I’ve got more choice about what to do here whereas in my old job, I’ve got less choice because there was one way to do it (Ronnie, 22/6/16)

When participants perceived a lack of support for reflective activity within the community, and without a shared understanding of, and engagement in, the activity system by the wider community, opportunities for collaborative reflective activity were restricted.

#### 6.3.1.3.2 Working patterns

Working patterns restricted recent graduates’ access to resources in a variety of ways. Long working hours and busy caseloads impacted on the availability of time for

reflective activity, and influenced participants' affective state (see 6.1.2). New graduates needed "time to breathe" (Georgie, 16/6/16), which wasn't routinely built into their working patterns:

I'm normally in at quarter to eight every morning...I'm supposed to finish at half six. I won't get home normally until about eight, half eight....so at work it is just, I don't have enough time to think unless there's like been a big situation where I've gone "I'm taking five" and I'm going to go and sit down and calm down.  
(Jules, 24/5/16)

Additionally, colleagues' work demands meant that several participants felt hindered in engaging others in reflective discussions:

There was kind of a guilt if I was asking questions in case it was wasting someone's time. (Eddie, 2/6/16)

Lone-working, either in branch practices or out-of-hours, limited opportunities for reflective discussion with colleagues:

I was by myself and that you have got no-one else for back up, so you know you sort of feel a little bit helpless at that point...It makes a difference to know that there is someone at the other end of the phone (Hayden, 8/6/16).

Very few new graduates had work time set aside for completion of their PDR; most completed it in their own time, suggesting that the PDR as a tool for learning was not valued by the employer. Where time was protected for completing the PDR, it was much appreciated and led to more positive engagement in the PDR process.

Balancing business demands with the learning needs of graduates led to a tension between division of labour and access to tools, impacting on the team's engagement in reflective activity.

#### 6.3.1.3.3 PDP expectations compared to reality

There was a stark contrast between the expectations of opportunities for collective reflective activity, as outlined in the PDP guidance, and the reality of the workplace. In

busy clinical workplaces protecting time for reflective activity is challenging; there is potential for conflict with neighbouring activity systems such as patient care and running a commercial business. This conflict is acknowledged in the PDP Guidance by highlighting boundary-crossing activities which could support reflective activity and may already be embedded within workplaces. Examples include appraisals, clinical governance processes, and clinical meetings. However, interview data suggested that the PDR (or wider reflective activity) was rarely incorporated into these activities. Lack of verbal discussion regarding written entries in the PDR limited the perceived value: “if somebody was actually interested [in my PDR] and actually wanted to talk about it and reflect with me, well I am more than happy to do that...but there was no-one.” (Stacey, 28/7/16); the PDR had more value for those for whom it triggered conversations with colleagues.

Practice meetings, as a forum for reflective discussion, were not a feature of all workplaces and could be associated with a blame culture (see 6.3.1.3.1). Individual review meetings, whilst for some providing a useful opportunity to discuss the PDR, often focused on financial targets and salaries rather than personal development. Even the more supportive employers were often not engaged in the PDR process, with their contribution to their employees’ PDR limited to signing the declaration form at the point of submission (see 6.3.1.2). This was likely due to a lack of understanding of the expectations of the PDP by employers, a lack of engagement with reflective activity in general, and workplace time pressures.

These findings suggest a contradiction between the RCVS (as voiced in the PDP Guidance) and employers (reflected in the experience of participants), which manifested as limited opportunities for reflective activity. This may have arisen from attempts to formalise what are often informal processes, discussed in the next section.

### 6.3.2 Formalising the informal

Contradictions relating to formalisation of informal processes were manifested in three ways: between the object of reflective activity in the PDP guidance compared to the format of the PDR (contradiction 2a); between subjects’ preferences and PDR format (contradiction 2b); and the impact of rules on the object of reflective activity (contradiction 2c). Each is described below.

#### *6.3.2.1 Contradictions between object of reflective activity in PDP Guidance and the format of the PDR*

There were contradictions apparent between the PDP Guidance and the format of the PDR (contradiction 2a: tool:object), regarding whether the object of the PDP was to evidence competence or encourage reflective activity, and whether it should evidence competence in just technical skills or in both technical and professional skills. Within the PDP Guidance, the (variably articulated) purpose of supporting reflective activity across a wide range of professional skills contrasted with the foregrounding in the PDR of a process of evidencing competence in a range of almost exclusively technical competences. There did not appear to be any blueprinting between the Year One Competences (listed as an appendix in the Guidance) and the PDR checklists themselves. Consequently, a rather mechanistic approach to reflective activity was portrayed, a concern reinforced by the heading in the Guidance (and echoed by many participants): “Is completing the PDP just a matter of ticking boxes?” (RCVS, 2012b, p. 9) Many of the participants described the PDR as a tedious, time-consuming chore; some found the format unintuitive, and many found logging numbers of procedures unhelpful. Several of the situations which participants discussed during their interviews had not been included in the PDR as there did not seem to be an appropriate section in which to write about them, highlighting a lack of opportunity to reflect on affective rather than purely clinical aspects of challenging situations. It was also noteworthy that most participants equated the PDP to the PDR; no participant used the acronym PDR and it was clear that they understood the PDP to be embodied by the online resource. Thus, whilst the PDR was offered by the RCVS as a tool to mediate reflective activity, the format of the resource was in contradiction with the object of the system.

#### *6.3.2.2 Contradiction between subjects’ preferences and PDR format*

There was a disconnect between participants’ preferred reflective actions and the written format of the online PDR (contradiction 2b; subject:tool). Although several participants appreciated the role of the PDR in highlighting gaps in their experience and showing their development over time, writing in the PDR was often viewed as less helpful than talking:

I find a conversation is much more useful, so I almost never write useful PDP entries; they are all like bland and very uninformative (Frankie, 11/5/16)

or thinking:

I don't find writing stuff down really helps me. I find it quite, almost more a frustrating process to write it all down than just to think about it myself. (Kim, 25/5/16)

There seemed to be a historical dimension in this resentment. Some participants who had not enjoyed reflective writing at university continuing to resent it as an activity in their PDP: "I've finally graduated...and now you have to carry on doing this thing that I hated at vet school" (Frankie, 11/5/16). The positive affective valence associated with informal reflective conversation compared to the formal, imposed requirements of the PDR, meant that the goal of each action was very different: completion of the PDR was, in most cases, a hurdle that needed to be overcome (a formal requirement) and was often not considered to affect outcomes.

...we all have a very negative attitude towards PDP but we all have quite a positive view of when we sit down and have these conversations and we don't link the two. We don't necessarily realise they are the same thing and that is what PDP is trying to get at is these conversations, but it just fails to do that...emotionally one feels like a burden and one feels like a joy. (Frankie, 11/5/16)

This was partly because thinking and discussions usually happened at the time of or immediately following an event, whereas the PDR was often completed weeks or even months later. It seemed that, for many, reflective activity enacted through the PDR was at best a peripheral part of their wider reflective activity.

#### *6.3.2.3 Impact of rules on object of reflective activity*

The rules associated with the PDP led to resentment of and reduced engagement with the PDR as mediating tool, thereby limiting potential to mediate achievement of goals and outcomes (contradiction 2c; rules:object). This was manifested in two ways, firstly the varied impacts of a requirement to reflect, and secondly in the use of language within the PDP Guidance.

There was resentment of being required to reflect in the written format, resulting in articulation of an object related to completion of formal requirements rather than an expectation of development: “I was just doing it because I had to do it” (Leigh, 13/5/16); “It was more just angry writing” (Hayden, 8/6/16). Whilst some participants did acknowledge writing’s value in providing structure and clarifying thoughts, very few continued to engage in written reflection unless required for a post-graduate qualification.

The voice of the RCVS, personified by the post-graduate deans, was apparent in the apprehensions that some participants felt in writing about negative outcomes in their PDR, knowing that it was going to be read by an unfamiliar person in authority. For some there was a tendency to emphasise positive clinical results to evidence competence, rather than reflect in a manner more likely to lead to learning:

I don’t think I write about any bad things here, I think I didn’t feel like that was the place to talk about things that went wrong...I felt that it was more “are you competent” and that was the questions that I was answering (Stacey, 28/7/16)

The RCVS appears to acknowledge the potential conflict experienced when reflective writing will be read by someone in a position of authority; in the Guidance it is noted that new graduates may not wish to share their reflective notes with their employer, and can choose with whom to share snapshots of their PDR. Yet, they are required to share their writing with their post-graduate dean, a representative of the profession’s regulatory body.

The language within the PDP Guidance highlighted a contradiction experienced as a conflict by participants. Whilst the RCVS, through the guidance, required new graduates to comply with the PDP, the expectation on the employers to provide support was constructed in language of negotiation rather than regulation; it is as if the voice of the employer raising obstacles to their expected role in the process is being addressed within the text. Graduates “are required to....” and “must engage....”, whilst expectations of employers are framed as, for example, “...the employer should still make some time available on a regular basis to discuss how the graduate is progressing” (RCVS, 2012b, p. 8). An excerpt from the Code of Conduct for Veterinary Surgeons was used to reinforce the requirement that the graduate “must engage in a process of

reflection, analysis and improvement in their professional practice” (RCVS, 2012b, p. 6); reminding the reader of the power that the RCVS has over individual graduates. There appears to be a less hierarchical relationship between the RCVS and the employers; the RCVS can suggest to employers how best to support their employees, for example by identifying a mentor, but does not require employers to provide evidence of commitment beyond a signature at the point of PDP submission. This creates a significant contradiction, that perhaps underpins many of the challenges experienced by graduates: recent graduates are required to engage with the PDP process, but there is no requirement (merely expectation) of their employers to engage in providing support. Without this support, facilitated by individual attributes, a supportive workplace culture, working patterns that facilitate interaction, and integration of formal and informal processes, the activity system is unlikely to achieve outcomes and may be at risk of collapse.

#### 6.3.3 Expansive development

Driven by these contradictions, there were examples of expansive development (see 3.3.3), albeit at the level of the individual rather than the system, when the contradictions inherent within the system of reflective activity led to individuals initiating transformative change. Expansive development was exemplified by three participants (Kim, Eddie and Georgie) who found themselves in situations in their first jobs where a lack of support, and therefore an ineffective context for purposeful reflective activity, resulted in a deterioration in their confidence and enjoyment of the job, to the point that two considered leaving the profession and one had not engaged at all with the PDR. It can be argued that, in these settings for these participants, the system of reflective activity had collapsed. After varying periods of time and with support from others outwith the workplace, each made the decision to find a new job. In their new roles, each of them found themselves in an environment where the system facilitated purposeful reflection, enabling them to regain their confidence and develop their skills:

I think being in a work culture where you’re supported then makes you better at supporting yourself. Whereas if you’re constantly worn down by people that aren’t supportive for you then you become less able to support yourself, you become kind of weaker as an individual. Whereas now [in a supportive practice] I would be able to go with the flow if something went wrong. (Eddie, 2/6/16)



## 6.4 Chapter Summary

Chapter 6 opened by exploring how affect, understood as subjective feelings and integral to *perezhivanie*, influenced the choices that participants made relating to the reflective actions with which they engaged. Affect was important for triggering reflective actions, through a noticing of usually unpleasant feelings that indicated that a situation warranted further exploration. Affective valence of different reflective actions led participants to reject, resent or engage with different actions. Background feelings and collective workplace mood influenced engagement with and outcomes of reflective activity. Participants, explicitly or otherwise, differentiated between the actions they undertook whether they were focusing on clinical or affective aspects of challenging situations.

Analysis of continuity of experience, as a temporal aspect of *perezhivanie*, highlighted two key features. Firstly, prior experiences of participants at university, in previous jobs, and in their personal lives, influenced their engagement with reflective activity. Secondly, development over time was analysed through the cumulative influence of reflective actions on aspects of development, as participants gained confidence and became more able to deal with affective challenges.

Findings of the dialectic analysis are presented under two main headings. Firstly, the need for support draws together conflicts experienced as a result of three different contradictions within the system: between worry and purposeful reflective activity (subject:object), between attributes of others and their role in mediating reflective activity (community:tool), and between workplace culture and access to resources (division of labour:tool). Secondly, there were three contradictions relating to formalisation of informal processes between the object of reflective activity in the PDP Guidance compared to the structure of the online PDR (tool:object); between preferred and required reflective actions (subject:tool), and between the rules and object of written reflective actions (rules:object). Finally, examples of expansive transformation at the level of the individual were identified, as participants sought new jobs where purposeful reflective activity could be supported.

Drawing these findings together, it is apparent that the experiences of participants and system level contradictions interact with and influence one another in ways that can

support or inhibit engagement in, and outcomes of, reflective activity. In Chapter 7, these findings are discussed with relation to theoretical and empirical literature.

## Chapter 7 DISCUSSION

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Using CHAT as a theoretical framework to understand reflective activity during the PDP, the following research questions were posed:

1. How is the system of reflective activity constructed during recently qualified veterinary surgeons' professional development phase?
  - a. What resources are used and how do they mediate reflective activity?
  - b. What is the role of interaction with others?
  - c. What are the outcomes of reflective activity?
2. What roles do affect and experience play in brokering and motivating reflective activity?
3. What conflicts and contradictions are experienced in the system, and how do these impact on the outcome of reflective activity?

Findings were presented in Chapters 5 and 6. In Chapter 7, each of these questions will be considered in turn, developing an understanding of the findings through relating them to the theoretical framework and empirical literature. Overall, it is argued that through framing reflective activity as both social and purposeful, with shared understanding of the object and consideration of the influences of affect and experience, it is possible to identify contradictions within the current system which limit the potential to achieve outcomes. These contradictions highlight the importance of support for new graduates as they engage in reflective activity during the PDP, and the challenges of formalising what are often informal processes.

### *7.1 How is the system of reflective activity constructed during the professional development phase?*

The system of reflective activity during the PDP was described in detail in Chapter 5 (see Figure 5-2, p. 93). In this section, aspects of the system of most relevance to the research questions are discussed, focusing on mediating tools and outcomes of reflective activity.

### 7.1.1 Mediating tools

This section explores the use of language as a mediator of reflective activity, before discussion of the role of schema and digital technology.

#### 7.1.1.1 *Language as mediator*

Language, through thought, talking and writing, was the main mediator of reflective activity. This section discusses the mediating roles of inner and social speech.

For some participants, the reflective actions of speaking and writing resulted in greater clarity and purpose compared to the “rambling” (Blair, 3/6/16) nature of thought, reflecting Vygotsky’s concepts of planes through which thought flows, from motivation, thought, inner speech and social (external) speech (Vygotsky, 1934/2012), and the concepts of word sense and word meaning (see 3.2.3.3, p. 40). If there is interaction with another person, there is more likely to be recalibration of meaning, or consideration of alternative perspectives, bringing closure or fresh ideas on a situation. Over time, the structure, content and outcomes of reflective discussions are likely to be internalised such that an individual’s inner speech becomes more informed by the perspective of “other”; a tool-mediated recognition of self (Miettinen, 2005). Awareness and acknowledgement of the multi-voicedness imbued in inner utterances might reduce the risk of enacting self-reflection as self-deception (Lektorsky, 2009, Habermas, 1974). This may be particularly important in newly qualified professionals, when the newness of the experiences and a lack of confidence in contextual knowledge results in a constant stream of noise drowning out attempts at purposeful reflection and action (Rodgers, 2002, Shaughnessy et al., 2017). This is supported by the finding that, over time, there was perceived to be less of a need for reflecting on affective aspects of challenging situations. It is also likely that experience and previous reflective activity facilitated the dialogue of inner speech; the conversation, over time, is happening with a more experienced “self”. Reflective writing can lead to more realistic expectations of self, and has been reported to result in reduced levels of self-reported stress in practising vets (May and Kinnison, 2015).

#### 7.1.1.2 *Schema and digital technologies*

Most participants, when asked to define reflection, framed it as a consideration of what had gone well and badly, to plan for future improvement. This suggested that a culturally-derived mental schema (familiar from feedback dialogue in university clinics)

had the potential to mediate both inner and social speech and structure the organisation of reflective actions. Reflective talk is more likely to achieve its aims when all involved understand the goals and structure the conversation in a manner likely to achieve them (Wells, 2007); actors' varying engagement in reflective activity may be in part due to the lack of a shared discursive genre. It is acknowledged that there is a tension between over-reliance on prescriptive schema and a recipe-following approach to reflective activity, and conversely a risk of an absence of structure leading to a loss of focus and outcome (Boud and Walker, 1998). Groups can structure their discussions in identifiable and consistent ways even when schema are not explicitly accessed as tools for mediating reflective discussion (Veen and de la Croix, 2017, Tigelaar et al., 2008).

With the emergence of digital media and the role it plays in day-to-day communication, it is unsurprising that many of the participants used digital resources such as WhatsApp as part of their reflective activity, often creating their own communities of practice with small groups of peers (Wenger, 1998). Whilst scope for discussion may be limited in the confines of a text message, the convenience, familiarity and rapid responses from peers suggests that embracing interactive, real-time digital tools to support reflection is worthy of further investigation. A common criticism of formal written reflective tasks, especially portfolios (Driessen, 2017), is that the action of writing is usually distant in time from the situation that triggered the process, and is often lacking in explicit interpersonal interaction. In contrast, several studies have highlighted the convenience, feasibility and acceptability of digital platforms for interactive reflective activity (Makoul et al., 2010, Bernard et al., 2014, Könings et al., 2016).

#### 7.1.2 What is the role of interaction with others?

As highlighted by Vygotsky's developmental method, transformative learning happens in response to challenges that create a developmental need, with development mediated by interaction with others. It is well recognised that health professionals find accurate self-assessment challenging (Kustritz et al., 2011), and a risk that "the reflective learning discourse may produce self-deceptive subjects" (Elmholdt and Brinkmann, 2006, p. 178). Whilst in some situations mediation through cultural artefacts such as books and internet resources might be adequate, to truly bridge the gap between knowledge and practice usually requires purposeful interaction with a more experienced professional. In this study, reflecting on challenges with the support of a more experienced other helped new graduates resolve dilemmas through exploration of different perspectives.

For most participants, this mediation occurred through frequent, informal discussions with colleagues; if this resource was not available due to individual attributes, interpersonal conflict, or working patterns, the participants found it much harder to achieve the goals and outcomes of reflective activity (Billett, 2016), discussed further in section 7.3.1.

#### 7.1.3 What are the outcomes of reflective activity?

The principle outcome of the activity system, as required by the RCVS, is that graduates must complete their PDP to maintain their status as practising veterinary surgeons, in line with the requirements of newly qualified professionals in other post-graduate medical settings in the UK such as medicine (GMC, 2017) and dentistry (GDC, 2017). Individuals' development towards this outcome happened at various levels within the system (van Oers, 1998, de Lange and Lund, 2008, Daniels, 2016). Development arose through individual reflective actions such as discussion with a colleague, as well as through clusters of related actions, for example discussion with a range of individuals and reflecting on clinical notes, or longitudinally through repeated reflection on similar situations. The goals of actions described by participants, such as enhancing understanding of a case, deciding on a management plan, or seeking reassurance, mirrored the benefits of collaborative reflective activity described by others such as affirmation of one's experience, gaining alternative perspectives, and seeking support for development (Rodgers, 2002), and learning new approaches, clarifying concerns, and resolving problems (Boud et al., 1985).

The development that comes from reflective actions does not always need to lead to a change in practice; a realisation that there are no other options, or reassurance that a situation was dealt with appropriately, are valuable discussions in their own right (Veen and de la Croix, 2017, de Groot et al., 2012, de Groot et al., 2014). The positive affective valence attached to reassurance is of itself useful (Damasio, 2006/1994). However, whilst seeking reassurance may be a valid goal of reflective action (Rodgers, 2002), there can be a risk of groupthink and a resulting lack of questioning of assumptions (Cressey et al., 2006, Eraut, 2004b). This might be a limitation of engaging in reflective interactions with peers via forums such as WhatsApp, where there is limited scope for detailed discussion.

## 7.2 *What roles do affect and experience play in brokering and motivating reflective activity?*

Subjectivity was explored through the lens of *perezhivanie* as “experiencing” (Jóhannsdóttir and Roth, 2014). Affect was integral to reflective activity: feelings triggered reflective actions, and influenced which actions were engaged with, in turn impacting on the experience of the subject. Additionally, reflecting on affective aspects of challenging situations was often approached differently from clinical aspects. Temporal aspects of experiencing were analysed, showing outcomes of development at levels of individual actions as well as over time. These findings are discussed in turn.

### 7.2.1 Subjective feelings as triggers

Similar triggers for reflective activity as found in this study have been identified in the medical workplace (Murdoch-Eaton and Sandars, 2014). Dewey and Boud both emphasised feelings such as uncertainty and surprise as triggers for reflection (Dewey, 1933, Boud et al., 1985). Understanding feelings as triggers for reflective activity builds on Gillespie’s sociocultural account of self-reflection (Gillespie, 2007), which explains triggers of self-reflection as arising through a disjunct between the perspectives of self and the internalised other. It can be argued that noticing the disjunct between the self and other perspective requires self-monitoring and noticing of feelings such as uncertainty, surprise or frustration (Sandars, 2009). When something goes wrong or a client complains, there is a challenge to previously congruent self and other perspectives experienced as unpleasant feelings such as frustration or anger; this noticing of feeling triggers reflective activity.

### 7.2.2 Affect influencing reflective action

Affective valence played a role in participants’ choices regarding in which reflective actions to engage; analysing affect at the level of actions helped clarify activity-level objects (Engeström, 2009). For example, the positive affective valence associated with purposeful discussion with a trusted colleague encouraged engagement in reflective activity. In contrast unpleasant feelings, such as fear of judgement, led to participants avoiding reflective discussions with their colleagues (Boud et al., 1985). Similarly, in a study drawing on organisational psychology frameworks, affect has been shown to influence undergraduate veterinary students’ feedback-seeking behaviour (Bok et al., 2013b).

Tacit, unconscious feelings are the product of action and are thus constantly produced and reproduced; they create the conditions for operations, influencing the ways in which actions take shape (Roth, 2007a). There was a dialectical relationship between perceptions of workplace mood and tacit feelings, with a negative workplace mood leading to negative personal feelings and vice versa. For example, an unhappy atmosphere amongst staff in one job contributed to Kim coming close to leaving the profession, whereas in a practice where a more positive workplace mood was perceived, Kim felt more supported. These findings reflect those in other studies, in which tacit feelings generated by engaging in different actions with different people influenced wellbeing and mood amongst nursing home staff (Makitalo, 2005) and optimised student learning in doctors' surgeries (van der Zwet et al., 2011).

### 7.2.3 Reflecting on clinical and affective challenges

Notwithstanding the close integration of affect with all aspects of reflective activity, it is of note that the participants differentiated tacitly and explicitly between reflection on affective challenges compared to clinical challenges. Whilst an affective response to a clinical challenge will trigger reflective activity, sometimes it was the feelings themselves, often a result of professional challenges such as client complaints or conflict with colleagues, which were the object of reflective activity, with participants seeking reassurance or validation of their feelings. More extreme feelings such as a sense of helplessness represent "double binds" within an activity system (Engeström and Sannino, 2011), where actors face equally unacceptable alternatives in terms of the choices available to them. Examples of double binds were apparent within the system of reflective activity, where workplace mood, tacit affective states and lack of support resulted in collapse of the system for a small number of individuals. Whilst participants were happy to discuss clinical challenges with a range of colleagues of varying seniority, they frequently preferred to discuss affective challenges with close family and friends, a finding that is echoed in a study of undergraduate medical students (de Vries-Erich et al., 2016). If there is nobody to whom an individual can turn for those conversations, it is likely that internalised worry will not progress to purposeful reflection (see 7.3.1.1).

These findings are of particular interest in light of survey data suggesting that female graduates, in an increasingly feminised profession, are more affected by a lack of support for affective challenges than their male counterparts (Robinson and Buzzeo, 2013, Buzzeo et al., 2014). The findings in the current study suggest that a lack of



support might be partly explained by the shift in conceptions of reflection in recent years; more experienced (and more likely to be male) members of the profession may not have received training in reflection and may consider reflecting on affective dimensions to be inappropriate or too “woolly” for scientifically-trained clinicians; whether or not there is also an influence of cultural gender differences (Ratner, 2000) warrants further exploration.

#### 7.2.4 Experience and experiencing

It is unsurprising that previous experience of reflective activity at university influenced engagement with reflective activity during the PDP. Whilst some participants valued the collaborative reflection during communication skills training, many had found university reflective portfolios to be unhelpful and time-consuming, a recognised perception of reflective writing (Curtis et al., 2016, Curtis et al., 2017, May and Kinnison, 2015, Driessen, 2017). It can take time and experience for individuals to appreciate the potential benefits of reflective writing, in more clearly articulating the challenges and learning that can happen from a situation (May and Kinnison, 2015).

Developmental outcomes of reflective activity reported by participants were similar to those identified in medical settings, including improved clinical decision making, technical skills, self-awareness, confidence and communication skills (Tonni et al., 2016, Fragkos, 2016). Outcomes at an organisational level were occasionally noted, but there was limited evidence of organisational learning, perhaps limited by a lack of shared understandings of the activity system (Cressey et al., 2006).

Expansive transformation of a system can arise from understanding of system-level contradictions. However, with a lack of a shared understanding of the reflective activity system within many workplaces, examples of expansive development were at the level of individuals rather than workplaces. Where there was a lack of support for reflective activity within the workplace, participants experienced conflict in their attempts to engage with reflective actions, due to system-level contradictions. By choosing to find a new job, often following reflective discussions with others outwith the workplace, those individuals can be considered to have undergone expansive development following the collapse of the system of reflective activity as experienced in the original workplace.

### *7.3 Conflicts and contradictions*

As outlined in Chapter 6 and summarised in Figure 6-1 (p. 115), analysis of conflicts experienced at the action-level led to identification of several contradictions within the system. These contradictions were considered under two overarching themes: the need for support, and formalising the informal. The first theme highlighted the limitations imposed by local cultural contexts on the development of recent graduates through collaborative reflective activity. The second theme highlighted the ways in which formalisation of informal processes hinder engagement in, and outcomes of, reflective activity.

These system-level contradictions are discussed in the next sections, drawing on theory and literature to analyse them through a dialectical lens.

#### *7.3.1 The need for support: Individuals' development in a social context*

Using CHAT to analyse reflective activity assumes that wider social context and historical development are key to understanding the system; taking a dialectic stance on individual and collective development, it is argued that development in individuals is co-constitutive with organisational learning (Lee and Roth, 2007).

In this study, conflicting understandings of reflection as an activity led to contradictions within the system, and experience of conflict at the action level. At the action level, collaborative actions such as talk are most likely to be helpful where there is shared understanding of the goal and when "individual" activities such as thinking and writing are understood as cultural and historical in origin and development; in the absence of a shared understanding, conflict will arise. There is also a dialectical relationship between individual and collective development as possible outcomes, emphasising how one influences and interacts with the other (Boud et al., 2006).

The findings in this study indicated three contradictions relevant to the tension between individual and collective approaches to development: a need for externalised reflective activity (e.g. talking, writing) to convert worry into purposeful reflection; challenges to achieving outcomes if individual attributes are perceived as unsupportive of reflective activity or wider aspects of workplace culture limit opportunities for reflective actions. In this section, an argument will be developed that explicitly social, externally-mediated reflective activity is essential for the outcomes of reflective activity to be achieved. The

difference between worry and reflective activity will be discussed, before exploring the importance of interaction with others for mediation of reflective activity and the ways in which workplace culture can restrict opportunities for interaction.

#### *7.3.1.1 How does worry come to be constructed as reflective activity?*

Being unnecessarily anxious, or worrying without purpose, was often articulated as a component of reflective activity by participants, with the inherent limitations noted only by some. This suggested a subject:object contradiction (contradiction 1a; see 6.3.1.1, p. 116); a mismatch between subjects' theoretical understanding of reflective activity as purposeful and goal-directed (Boud et al., 1985), often alluded to when participants were asked to define reflection, and the reality of their actions.

The discourse and affordances of reflection in a person's history, in their current workplace and in the wider profession, will alter their understanding of what it is to engage in reflective activity. An individual who understands, or by circumstances is required to engage in, reflective activity independently of others (self-reflection), can be considered less likely to achieve successful outcomes. Without the perspective of others from which to learn, the internalised view of other on self risks being limited and/or inaccurate (Gillespie, 2007). Development of self-reflection abilities is then, at best, hindered. At worst, in association with negative tacit feelings and workplace mood, self-reflection may reinforce an inappropriately negative sense of self, and an excess of worry over purposeful reflective thought. Lacking purpose, the stream of consciousness associated with worry is not equivalent to reflective activity (Dewey, 1933, Rodgers, 2002). There is a danger of promoting reflective activity as intrinsically beneficial without emphasising the importance of a forwards- and outwards- looking goal; without purpose, reflective activity may lead to a "debilitating excess of consciousness" (Bleakley, 1999, p. 320). It has been suggested that reflective activity may, of itself, be harmful, leading to anxiety and a sense of being not good enough, theorising reflection as a controlling rather than liberating resource (Hargreaves, 2010, Cotton, 2001). If this introspective inner dialogue, "ruminations" (Rodgers, 2002, p. 883) or "narcissistic pondering" (Bleakley, 1999, p. 320), comes to be understood as the *sense* of reflection (as opposed to the *meaning* of reflection (Vygotsky, 1934/2012) (see 3.2.3.3) then truly purposeful reflective activity is unlikely to be realised.

The findings suggest that converting worry into purposeful reflective activity requires externally mediated actions such as talking or writing. The next section will consider how interaction with others mediates purposeful reflective activity.

#### *7.3.1.2 Perceived attributes of others*

Without engagement with reflective actions from those in the community, or a shared understanding of the purpose of reflective activity, a community:tool contradiction emerges (contradiction 1b; see 6.3.1.2, p. 117). Attitudes of others are important if language, through interaction with others, is to be effective in mediating reflective activity (Dewey, 1933, Boud, 2010). Findings suggested that some individuals' scepticism relating to reflective talk and writing reduced the perceived value of these actions. Reflective talk relies on at least two participants; using Wells' model of discourse as mediator (Wells, 2007), in which each participant is understood to have their own object for engaging in discussion, and be variably influenced by cultural-historical considerations, it is clear why the attributes of individuals in the community and the wider workplace mood emerged as themes in the data. More experienced veterinary surgeons will not have been enculturated into reflection as an activity during their training (May and Kinnison, 2015); their discomfort and mistrust of a "new" expectation of professional practice leads to a conflict between their role as mentor and their ability to engage effectively in discussion to mediate reflective activity. Those participants who had a near-peer as mentor, familiar with reflective activity in general and the PDR specifically, reported highly purposeful conversations and for some, deeper engagement with reflective writing in the PDR. This difference has resonance with Vygotsky's description of how mediating artefacts that emerge in social activity ("signs") develop meaning for subjects through repeated exposure and interaction (Wertsch, 2007). The development of this meaning will be influenced by affective valence; through repeated association with unpleasant affective states, engaging in reflective activity will be internalised as an uncomfortable and potentially pointless endeavour. Conversely, where reflective talk is a positive experience, with all participants engaged in supporting one another, reflective activity becomes meaningful, valued and purposeful. Shared understanding of the object of reflective activity is important; individuals' attitudes to, and experiences of, reflective activity both shape and are shaped by the wider workplace culture, discussed in the next section.

#### 7.3.1.3 *Workplace culture*

Aspects of workplace culture influencing reflective activity include workplace mood, hierarchy and working patterns. Conflicts experienced as a result of these arose from, division of labour:tool contradictions (contradiction 1c; see 6.3.1.3; p. 118). Where workplace management strategies make it difficult for subjects to access the resources they need to mediate reflective activity, or there is a difference between expectations and reality of available resources, a contradiction emerges between division of labour and mediating tool. If reflective activity is to be part of the culture of a workplace, developmental or reflective space is needed, requiring attention to physical, organisational, and socio-affective aspects of context (van der Zwet et al., 2011, Kumagai and Naidu, 2015, Billett, 2016, Hatton and Smith, 1995, Boud and Walker, 1998); there needs to be space for creation of shared meaning (Knight et al., 2006). As was the case for participants in this study, at the practical level, limitations relating to time and opportunity for individual or collective reflective activity are recognised in a variety of professional settings including teaching (Stoll et al., 2006), medicine (George et al., 2013, Driessen et al., 2008), and physiotherapy (Roche and Coote, 2008). Echoing the words of Mastenbroek (Mastenbroek et al., 2015), commitment from the employer is necessary to bring about change in working circumstances, to support collaborative reflective activity and development.

Some form of organised, collaborative reflective activity has long been proposed as valuable, offering an opportunity to identify new perspectives and further development needs (Boud et al., 1985). An emphasis on explicitly collaborative reflective activity in achieving outcomes is supported by a recent shift in the literature emphasising the importance of mentoring (Wass and Harrison, 2014, Driessen, 2017) and group discussions (Mastenbroek et al., 2015, de Groot et al., 2013, de Groot et al., 2014) as an integral part of reflective practice. The challenge lies in identifying opportunities and processes for these activities which will be of value to all participants, both at an individual and collective level; there were a few examples in the data of organised group discussions, but these were uncommon and often not prioritised over other workplace activities. Of relevance to the PDR, there are many examples within the literature of value being added to reflective writing activities through subsequent discussion with others (Oto et al., 2017, Wald et al., 2009, Sukhato et al., 2016, Tonni et al., 2016, Driessen, 2017). Despite the encouragement in the PDP guidance that employers should provide mentorship and support whilst graduates complete the PDR, the data from the

participants in this study and others indicates that it is not happening consistently within small animal practice (Robinson and Buzzeo, 2013). Perhaps working towards an understanding of reflective activity as productive reflection (Boud et al., 2006), and increasing focus on the value of collective activity for both individual and organisational development through concepts such as professional learning communities (Stoll et al., 2006) would help teams prioritise reflective activity in busy working environments.

### 7.3.2 Formalising the informal

The PDP, as a structure imposed by the profession's governing body, is shaped by rules and requirements, and embodied by the online PDR. This formalisation of otherwise informal reflective activity led to several contradictions. These contradictions include uncertainty over the object of the PDP, the requirements of the RCVS PDP conflicting with participants' preferred reflective actions, and the impact of rules on reflective activity. In the following section, each of the contradictions will be discussed, with reference to how the contradictions impact on outcomes of activity.

#### 7.3.2.1 *What is the object of the PDP?*

This contradiction (contradiction 2a, see 6.3.2.1, p. 122) arises primarily from the disconnect between the object of the PDP as supporting reflective activity across a wide range of technical and professional competences, and the format of the PDR. The PDR foregrounds logging of technical procedures in checklists which do not map to the professional skills aspects of the PDP Competences. This represents a tool:object contradiction between the PDR as mediating tool and the object of the PDP.

A reductionist understanding of what is meant by the PDP is reinforced by participants referring to the PDR as their PDP; the PDP is then interpreted as a resented, time-consuming exercise rather than a phase which provides opportunity for growth and development. This led participants to experience conflict arising from the mismatch between their understanding of the object of reflective activity as supporting learning and development, and their perception of the PDR as a tick-box exercise, often somewhat peripheral to their wider reflective activity.

This contradiction can perhaps be understood through situating the PDP and its development in the wider social context. Prior to the PDP being launched in 2007 there was no requirement for any formal monitoring or support for new graduates. It is likely

that the creation of the PDP and the PDR was influenced by three different social discourses, introduced in Section 1.3.1: changing expectations of professional accountability, the social imaginary of lifelong learning, and the need to support new graduates. Firstly, the need to measure and monitor performance is reflected in the use of checklists to evidence competence in technical skills in the PDR. Secondly, the focus on reflection in the guidance, if not in the PDR itself, resonates with the wider discourse of lifelong learning and the focus on reflective practice within professions such as teaching and healthcare. Thirdly, the PDP is described as existing to “help support new graduates as they begin their careers in clinical practice” (RCVS, 2012b, p. 3); alongside the literature emphasising the need for support during the transition to practice (see 2.2), there is current emphasis on mental health and wellbeing within the veterinary profession (RCVS, 2017c). These disparate discourses may have contributed to the disconnect between the object of the PDP as articulated by the RCVS and understood by participants, and the format of the PDR itself, risking the creation of confusion and disengagement amongst the wider profession.

Whilst the object of the formal activity system of the PDP is inconsistently articulated, and experienced, it is little surprise that most participants viewed the PDP as a box to tick rather than a valuable resource. The next section explores aspects of preferences and rules that may also impact on experience with the formalisation of reflective activity.

#### *7.3.2.2 Preferences and rules*

There are well recognised risks with “formalising the informal” (Boud, 2006, p. 165), and an emerging sense of concern regarding excessive formalisation of reflective activity in healthcare (Ng et al., 2015, Wear et al., 2012, Murdoch-Eaton and Sandars, 2014), exemplified in this context by the requirements of the PDR. Imposition of rules and mediating tools creates a contradiction that both defines and changes reflective activity; in the longer term, through identifying these contradictions, rules and tools can be changed by addressing the contradictions they create, leading to expansive transformation of the system.

Requiring people to reflect in a prescribed manner creates a subject:tool contradiction (contradiction 2b; see 6.3.2.2, p. 122), limiting choice, risking resentment and disengagement, and limiting potential outcomes of reflective activity. For most

participants in this study, talking and thinking were preferred reflective actions, a finding supported by studies from other professions (Curtis et al., 2016, Curtis et al., 2017, Reed, 2015, Shaughnessy and Duggan, 2013), and by the findings of the RCVS consultation on CPD (RCVS, 2016c). It is acknowledged that professionals have different preferences for reflective actions, and that these should be supported (Wass and Harrison, 2014). Thinking and discussing with colleagues have the advantage of being spontaneous and informal, closely related in time to the situation itself. In this study, writing in the PDR was often distanced from the situation itself, and perceived as time-consuming, box-ticking, and of limited value. If the goal is to complete an entry in the portfolio rather than truly reflect on and learn from the situation, then the potential outcome of reflective activity is likely to be limited. Indeed, it was apparent that for most people completion of the PDR was almost a separate activity system to their day-to-day reflective activity. The tension remains that, if reflective activity is to be measured or monitored for regulatory purposes then some form of recording is required, with the associated practical and logistical challenges inevitably impacting on individual actions and experiences (Bodgener et al., 2017).

Writing adds value to reflection by enabling clarification of thought, but when it is a formal requirement (at either undergraduate or postgraduate level) it risks becoming a resented chore, competing for time with patient care or personal activities, and often associated with negative affective valence. If compulsory reflective activity such as completion of online portfolios is not valued by participants, resentment of the time required is unsurprising (Curtis et al., 2017). There is evidence that initial resentment of writing can be overcome once individuals realise the value of reflective writing (Silva-Fletcher et al., 2014); whilst this was acknowledged by participants in the study, only one had continued to use writing explicitly as a mediator of reflective activity. Even those who value writing as a reflective action find it difficult to create space for it in their working lives (Boud, 2006). It is likely that most people will only engage in reflective writing if there is a formal requirement; the challenge lies in identifying ways in which requirements for reflective writing can be incorporated within, and support, broader reflective activity.

A rule:object contradiction (contradiction 2c; see 6.3.2.3, p. 123) was manifested in two ways. Firstly, if a person in a position of authority will have access to an individual's written reflections, reflective activity itself may be altered. With some participants



apprehensive that a post-graduate dean would read their PDR, there is a risk that reflective writing is perceived as a tool for surveillance and regulation rather than transformative development (Wear et al., 2012). It is recognised that learners will write what they perceive their assessor wants to read, playing a “reflective game” (Hays and Gay, 2011, Hatton and Smith, 1995, Silva-Fletcher et al., 2014, Macfarlane, 2015, Macfarlane and Gourlay, 2009), as highlighted by those participants who felt that the RCVS needed to see evidence of competence, or evidence of reflective ability. Beyond the perception of what the assessor wants to see, there may also be a fear of judgement or even disciplinary action; a tension between public and private reflection (Vivekananda-Schmidt et al., 2011, Boud and Walker, 1998). Writing for self, without fear of judgement, has been shown to be of intrinsic value to medical professionals (Shaughnessy et al., 2017); again, the challenge lies in creating space for, and motivating subjects to engage in, such activity.

The other manifestation of a rule:object contradiction arose from the language within the PDP Guidance, with the requirement of new graduates to comply with the PDP contrasting with the negotiated expectation of employers to provide support. Graduates are led to expect a degree of support from their employers to help them complete the PDP, yet employers are not formally required to provide this support, leading to a disconnect between expectation and reality for many participants, and reducing the likelihood of the object of the system being achieved. It has been stated that “without mentoring, portfolios have no future and are nothing short of bureaucratic hurdles” (Driessen, 2017, p. 221); the findings in this study support that assertion. Whilst in some workplaces support and mentoring through the PDP was a straightforward and positive experience, in others the absence of effective mentoring appeared to lead to collapse of the system for the participant. Where the expectations for support from employers aren’t clear, graduates must negotiate for themselves the level and type of support which they need. The question must be asked whether it is reasonable to expect new graduates, during one of the most challenging transitions of their professional lives, to engage in such negotiation, or whether the PDP itself should be changed to ensure that adequate support is available.

#### *7.4 Chapter summary*

Chapter 7 discussed the findings presented in Chapters 5 and 6, relating them to each research question in turn, and to the empirical and theoretical literature introduced in Chapters 2 and 3. By framing reflective activity during the PDP as both social and purposeful, whilst considering the experiences and feelings of new graduates themselves, it is possible to uncover contradictions within the system which limit the potential for the system to achieve its outcomes.

The findings demonstrated the importance of language, in the forms of thought, talk and writing, in mediating reflective activity. The greater clarity of purpose achieved through social speech (such as writing or talking) has been explained using concepts of word sense and meaning, with interaction with others supporting the development of a more experienced self which can, in turn, help mediate purposeful reflective thought. Shared understandings of reflective activity enhance the outcomes of reflective interactions, with digital technologies playing a role in facilitating collaborative reflective activities.

Aspects of subjectivity were explored through the lens of *perezhivanie*, focusing on affect and continuity of experience. Recognising feelings as triggers for reflective actions links to the importance of the development of a more experienced self, supporting the ability to engage in purposeful reflective thought. Within the system, subjects have choices as to which actions they engage with; affective valence associated with different actions, tacit feelings, and workplace mood all influence these choices and in turn influence the experience of the subject. The choices are perhaps most apparent when exploring the differences in actions engaged with to reflect on affective compared to clinical aspects of challenging situations. Having access to others with whom participants are comfortable discussing both of these aspects appears to be important for the outcomes of reflective activity to be achieved. Reflective activity led to development at both the level of individual actions and over time, with examples of expansive development when individuals experienced collapse of the system within their workplace.

The contradictions identified emphasised the importance of providing opportunities for collaborative reflective activity, and acknowledging the consequences of formalising informal processes. Converting worry into purposeful reflective activity is enhanced

through opportunities for collaborative reflective activity, and interaction with a more experienced other can mediate individual and collective development. However, unless workplace management processes are in place which support and facilitate collaborative opportunities, the potential for outcomes to be attained is limited. Additionally, shared understanding of the object of reflective activity is important to enhance outcomes. Confusion between the purpose of the PDP and the PDR's format, and a requirement for graduates to engage in reflective writing without processes in place to ensure adequate support for collaborative reflective activities, means that the realities of the system of reflective activity are rather removed from the system envisioned by the RCVS.

By articulating these contradictions, it is hoped that these findings might in some way influence expansive development of the activity system. If the potential outcomes of the system are to be fully realised, new graduates need opportunities to engage in social reflective activity with trusted colleagues with whom there is a shared understanding of the purpose of reflective activity. This may need some reconsideration of the formal expectations of employers, such that workplaces that employ new graduates are required to identify ways in which appropriate support and opportunities can be provided.

Chapter 8 summarises the findings and discusses the contribution the study makes to the literature, before reflecting on the research design. Recommendations for changes at individual, workplace, and professional levels, and future research, are then proposed.

## Chapter 8 CONCLUSIONS

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The aim of the study was to understand how recently graduated small animal veterinary surgeons engage in reflective activity during their professional development phase.

Taking a cultural-historical activity theory approach enabled an understanding of the system of reflective activity to be developed, as described in RCVS documentation and interviews with recent graduates. Subjectivity was explored through the lens of *perezhivanie*, suggesting that both affect and previous experiences played important roles in influencing the ways in which participants engaged in reflective actions.

Dialectic analysis of the system highlighted the importance of access to support from trusted others with a shared understanding of the purpose of reflective activity, and the importance of consideration of the impact of formalising often informal processes.

This concluding chapter summarises the findings relating to each of the research questions, before reflecting on the design of the study. Recommendations arising from the study are then presented, with potential avenues for future research.

### *8.1 Summary of key findings*

#### 8.1.1 How is the system of reflective activity constructed during the professional development phase?

Using Engeström's methods (Engeström, 1987) to guide analysis of the activity system, it was clear that language and interaction with others were the key mediators in achieving outcomes of reflective activity for most participants, contrasting with the dominant discourse in medical education of reflection as a solitary, individual activity. Individuals varied in their preferences for different reflective actions; whilst written reflection was a requirement of the PDR, most participants preferred to think or talk about their experiences, with reflective activity mediated by language and tools such as WhatsApp. RCVS and workplace rules, working patterns and hierarchies influenced the choice of and engagement in reflective actions. Other actors within the community were integral to reflective activity, with graduates engaging in discussions with their colleagues, peers, friends and family. For most, reflective activity was a routine, informal aspect of working life which crossed over into home and social spheres. Most reflective activity was described as mediating individual development; examples of collective activity driving workplace change were less common.

### 8.1.2 What roles do affect and experience play in brokering and motivating reflective activity?

The concept of *perezhivanie* as experiencing (Jóhannsdóttir and Roth, 2014) was used to explore how affect and activity are related and integrated from the perspective of the subject. The noticing of a range of feelings such as frustration and anger appeared to lead participants to engage in reflective actions. Drawing on the work of Roth (Roth, 2007a), perceived affective valence of actions (such as tedium associated with reflective writing), tacit feelings (such as tiredness), and workplace mood influenced participants' engagement in different actions, with different actors, and with different goals. Participants differentiated between the actions undertaken when focusing on clinical compared to affective aspects of situations. Prior experience at university and workplaces influenced engagement in reflective activity. Reflecting on and integrating the learning from multiple experiences helped participants to develop and gain in confidence over time.

### 8.1.3 What conflicts and contradictions are experienced in the system, and how do these impact on the outcome of reflective activity?

The study highlighted contradictions within the system which may explain some of the confusion and uncertainty around the understandings of reflective activity in the veterinary profession, outlined in 1.3. Contradictions were grouped into two overarching themes: the need for support, and formalisation of informal process. The first theme highlighted challenges experienced by individuals engaging in social reflective activity in the workplace, such as a lack of opportunities for discussion with trusted colleagues. The second theme highlighted tensions arising through the formalisation of often informal reflective activities, with inconsistencies between the guidance provided by the RCVS and the realities of the workplace, and resentment of rules and a requirement for written reflection. This study suggests that a socially-mediated understanding of reflective activity is essential to optimise outcomes: graduates need support, through opportunities for talking and/or writing, to progress worries into purposeful reflection. This is perhaps best underpinned by a shared understanding of reflective activity by professionals and their wider professional networks, and by working practices which facilitate, prioritise and normalise reflective interaction. Individuals' preferences for reflective actions vary; this study supports the assertion that any formal regulatory system needs to acknowledge these preferences

and consider the impact of rules and hierarchies on formal requirements for reflective activity.

## *8.2 Contributions of the study*

The study offers three potential contributions to the literature: the use of CHAT to reconceptualise reflection as an activity; the use of *perezhivanie* to foreground individual experience within the activity system; and furthering understanding of the challenges experienced by recent veterinary graduates. Each of these is considered in turn.

The study suggests how concepts of reflection articulated by writers such as Dewey and Boud can be understood from a cultural-historical approach, with a focus on social, purposeful activity, mediated through language, foregrounding experience and affect, and understanding the role of dialectical relationships in shaping the system and driving development. Using Engeström's triangle heuristic (Engeström, 1987) to delineate the system of reflective activity during the PDP highlights the importance of shared understandings of the object of the activity, and the ways in which rules, communities and division of labour influence potential outcomes. In a small way this starts to address some of the concerns raised by Ng and others (2015) relating to predominant conceptualisations of reflection as a solitary activity, understood as a tool or competence to be assessed. The study suggests how conceptualising reflection as a collaborative, situated activity which leads to individual and collective development has potential to create opportunities to better understand why, for many healthcare professionals, the word "reflection" is loaded with uncertainty, confusion and negative connotations. The approach has potential to promote understanding of professional cultures and practices that could underpin development of reflection as a way of being, contributing to a conversation that might help answer Bleakley's call for conceptualisation of reflection as holistic reflexivity (Bleakley, 1999). Through understanding system-level contradictions, experienced as conflicts by individuals, recommendations can be made that might be able to drive expansive development within the system itself.

The study also highlights the understanding that can come from integrating analysis of both the system and the subject. The PDP aims to support the development of recently qualified veterinary surgeons; as such, it was important to foreground the experiences

of these individuals. An approach to analysis was developed which builds on the case-study described by Jóhannsdóttir and Roth (2014), integrating the concept of *perezhivanie*-as-experiencing into analysis of a system experienced by subjects working in different settings. Whilst it might be argued that this approach risks compromising systems-level analysis, including subjectivity through *perezhivanie* has highlighted how the experiences and perceptions of individuals influence and are influenced by the wider system. By focusing on the system as a whole, whilst drawing on individuals' experiences to identify action-level conflicts, it was possible to consider the dialectic relationship between the individual and wider context, rather than viewing context merely as something that constrains the activity of the individual (Roth, 2014). The cultural-historical approach helped identify and theorise the gap between reflectivity activity as proposed by the RCVS, and the reality of graduates' experience in workplace contexts (Roth et al., 2014).

Through shining a lens on reflective activity as an essential component of the PDP, the study contributes to calls for more careful consideration of the support mechanisms available for new graduates as they make the transition to professional practice (Robinson and Buzzeo, 2013, Vetfutures, 2015a), with attention not only to development of clinical skills but also consideration of affective and cultural aspects of working life (Mastenbroek et al., 2014c, Lundin et al., 2018). The study's findings are consistent with those from a recent RCVS-funded evaluation of the PDP (Flaxman et al., 2017), which identified that there are varied understandings of the purpose of the PDP, and a need for better support structures (with an increased emphasis on non-clinical aspects of professional development). The findings also build on those from other veterinary workplace studies (Mastenbroek et al., 2015, de Groot et al., 2012) which have highlighted the potential benefits of opportunities for more collaborative, non-judgemental reflective activity. It is hoped that in some small way this study can contribute to the ongoing development of the PDP, and the wider role and systems of reflective activity within healthcare professions.

### *8.3 Reflections on research design*

This section briefly considers the study from the perspectives of quality criteria for qualitative research developed by Lincoln and Guba (1985), before considering some limitations of the study. Credibility was enhanced through my detailed understanding of

the profession, prolonged engagement with theoretical concepts during doctoral study, member-checking, and informal peer debriefing. Transferability in the qualitative paradigm requires thick description of context to facilitate the reader in relating the findings to their own contexts (Mertens, 2010, Geertz, 1973); this was enhanced by focusing on small animal practice and a single cohort of graduates from one university. This focus can also, however, be construed as a limitation; it cannot be assumed that experiences of graduates with different backgrounds or working in other contexts such as farm animal practice would be similar. Dependability was enhanced by maintaining audit trails of changes to the interview guide and thematic templates, and following documented procedures for data analysis. Confirmability was also supported by the audit trail maintained during data analysis and by ensuring all codes and quotes could be clearly traced to original data sources.

Limitations of data collection and analysis were discussed in section 4.7, (p. 81) including reliance on self-report interview data, recruitment of participants from a single university, small sample size, lack of longitudinal data collection, the challenges of maintaining a focus on the unit of analysis, and the limitations of the triangle heuristic. In this section, alternatives to interview methods and the challenges of researching an inherently dynamic system are considered.

Given the limitations of interviews as gathering “reflections on reflection” (Veen and de la Croix, 2017, p. 333), enhancing the study with participant observations was considered. Understanding reflection-as-action (Bleakley, 1999) can be enhanced by analysis of observations and reflective talk (Veen and de la Croix, 2016, Veen and de la Croix, 2017). Methods such as direct observation of interactions with follow-up interviews (Lyle, 2003) were considered, to provide an opportunity to “observe situations in which participants are engaging in goal-directed actions and object-oriented activities” (Yamagata-Lynch, 2010, p. 71). However, observational methods were not employed for a variety of reasons. Embedding myself within the workplace may have created recruitment bias as those in challenging work situations would be less likely to participate, as well as increasing the commitment required from participants. Direct observation may have excessively influenced interactions particularly in view of my previous relationships with participants as a teacher. Whilst using CHAT assumes that reflection is a socially-mediated activity, there is an inevitable component of reflective activity that is an internal process mediated by thinking (albeit influenced by



socially-mediated norms and frameworks), and not amenable to direct observation. My insider-outsider positioning may have mitigated to some extent against the lack of observational data, sharing a professional language and some similar experiences with the participants. I was aware that I needed to balance my understanding of clinical workplaces with the risk of introducing my own assumptions, through careful questioning and interpretation of data.

It must be noted that changes were happening within the system and wider profession during the period of the study. The Guidance document (RCVS, 2012b) and other resources that were analysed for this study were those that were available to the participants; an updated version has been published (RCVS, 2016b), for example replacing “Year One Competences” with “PDP Competences”, reflecting a new three-year limit for completion of the PDP. The landscape of the profession is evolving, with high levels of corporatisation of practices and the emergence of both corporate- and independent-led new graduate support schemes. Additionally, university training and support for reflective activity has continued to develop since these participants graduated in 2013; for example, at BigCity University reflective writing is now embedded within final year clinical training, and technical challenges with the reflective portfolios have been overcome. Thus, whilst we cannot be certain that the findings reflect the ongoing situation, it is hoped that they contribute to the conversation. It is heartening that there appears to be an appetite for change within the profession.

## *8.4 Recommendations*

Whilst some practices provide excellent support to their new graduates, and some new graduates embrace the challenges of the transition to working life, it is clear that for others the system needs to change. Using CHAT to uncover system-level contradictions creates an opportunity to make recommendations to drive system-level development at the level of the profession, the workplace, and the individual new graduate.

### *8.4.1 The Profession*

- The PDP Guidelines and supporting resources should be reviewed to ensure consistency and clarity of purpose, clearly articulating whether the purpose is to support recent graduates’ development, evidence their competence, or develop their reflective skills.

- Efforts should be made to portray an understanding of reflective activity and the PDP that extends beyond completion of the PDR; most refer to the PDR as “the PDP”, with limited sense of a wider system.
- The PDR should be reviewed to ensure that it reflects the stated purpose of the PDP, and if appropriate maps to the PDP (previously Year One) Competences, with explicit reference to professional skills as well as the technical skills contained in the current checklist.
- A workplace mentor should be considered an essential requirement; this could be the employer or another experienced colleague. Given that the mentor is likely to also benefit from the shared reflective activity, but mentor engagement is inconsistent, incentives such as acknowledgement of a mentoring role contributing to CPD requirements could be considered. Proactive engagement with the mentor at the start of the PDP, by both the RCVS and the new graduate, is likely to be required. Appropriate resources and options for training should be made available to those inexperienced with the concept of mentoring or reflective activity. It might be useful to provide proformas to support and document mentor-mentee meetings.
- Opportunities for mentoring relationships from beyond the workplace should be available, outwith the regulatory power relations of the RCVS, and with a more personal relationship between the mentor and mentee. One such scheme has been recently established, run by the School of Veterinary Medicine in Dublin (Graham, 2016)
- Individuals’ preferences for different reflective activities need to be considered in any formal requirements for documenting reflective activity. Graduates should be given the option of recording brief notes and outcomes of reflective talk as an alternative to a focus on reflective writing, and consideration given to embracing digital technologies as mediators of reflective activity.
- The impact of audience and rules on any reflective writing should be considered, and graduates encouraged to embrace reflective activity in a way that suits their working life and preferences for reflective actions, rather than playing a “reflective game”.
- In line with the current focus on mental health and wellbeing, it seems appropriate to expand the discourse on reflective practice to incorporate discussion of affect, at individual and workplace level.

- Universities have a key role to play in developing graduates' understanding of reflective activity, supporting graduates to understand their own preferences for reflective actions.

#### 8.4.2 The Workplace

- Reflection underpins learning and development. A learning culture in a workplace, that encourages and supports purposeful reflective activity, should be explicitly developed. The concept of Professional Learning Communities, embraced within the teaching profession, may provide useful insights for veterinary practice (Stoll et al., 2006)
- Both individual and collective development should be supported by reflective activity. Trusting, respectful mentor/mentee relationships are essential, in addition to wider opportunities for discussion of challenges through forums such as case rounds, clinical governance meetings, and updates following CPD events. Such meetings should be prioritised by management teams, a no-blame culture articulated and enacted, and attention paid to ensuring reflective activities are purposeful and lead to action where appropriate. When geography is a barrier to group meetings, video-conferencing technologies could be appropriated.
- Workplace management strategies should prioritise developmental space for reflective activity, both in terms of time and availability of more experienced colleagues, through consideration of rotas, scheduling of meetings, and backup in person or via telephone. Many practices already do this well, but there are clearly examples where this is not the case.
- It is essential that support is provided for new graduates for both clinical and affective aspects of development, to optimise learning and enhance wellbeing, productivity and staff retention.
- Whilst graduates may be able to access social and family communities for support, particularly for affective challenges, employers should be attuned to the needs of their new graduates as they make the transition to practice, encouraging them to identify social support networks within and beyond the workplace.

#### 8.4.3 The New Graduate

- New graduates should understand that their employers may not be familiar with concepts of reflective activity or the PDP, and take time to explain what is expected by the RCVS and what support would be valued by them as individuals.
- New graduates can contribute to an understanding of reflection as the art of practice (a phrase familiar to practitioners), and as a way of being, by recognising and embracing purposeful reflective activity in all its forms.
- Whilst digital technologies such as WhatsApp are an invaluable resource, graduates engaging with these technologies should consider the purpose of their interactions within that medium. Seeking reassurance and support is a valid goal, but should be understood as such, and the limitations of seeking advice from peers with similar levels of experience acknowledged.
- Graduates should purposefully appropriate the resources that are available to them, and ensure that they identify support networks for reflective activity relating to both clinical and affective aspects of challenging situations. Support for reflective activity relating to clinical aspects is most likely to come from within the workplace or from experienced colleagues in a wider professional network. Support for reflecting on affective aspects may be more available within social and family networks.

#### 8.4.4 Further research

The findings of the study raise several questions relating to other possible areas of research.

- Building on existing work, observational studies would help identify how reflective activity is enacted within veterinary workplace settings (Veen and de la Croix, 2016, Veen and de la Croix, 2017, de Groot et al., 2014), focusing on how concepts of reflection translate into reflective talk and writing.
- Interventional studies, perhaps drawing on the expansive learning principles of Developmental Work Research (Engeström, 2000a, Engeström, 2005), could be used to optimally embed any new resources or processes, paying heed to the voices of all the actors in the system and considering the role of interactive digital platforms

- Further research needs to be undertaken to understand how best to engage mentors, particularly within the workplace, and to explore whether graduates' experiences are similar in other types of veterinary work, such as farm animal practice.

### *8.5 Concluding comments*

Bridging the divide between individual and collective understandings of reflective activity, and the challenges of formalising informal actions, requires that attention is paid to the wider system as well as the experience of individuals within that system. This study suggests that re-evaluation of the needs of the individual actors, both graduates and their colleagues, is required, with better support for their engagement in purposeful reflective activity. If the potential outcomes of the system are to be fully realised, new graduates need opportunities to engage in social reflective activity with trusted colleagues with whom there is a shared understanding of the purpose of reflective activity. The findings of this study suggest that reconsideration of the formal expectations of new veterinary graduates and their employers would be warranted and timely. If we can encourage veterinary professionals to engage in purposeful reflective activity as a “way of being” (Ng et al., 2015, p. 464), through developing workplace cultures and practices that support collaborative activity, then the potential for individual and collective learning outcomes can be enhanced.

This research arose from a personal motivation to understand better the challenges and frustrations faced by some new graduates. Data collection and analysis were undertaken at a time when new graduate support was becoming increasingly prominent as a priority for the profession, to enhance both wellbeing and retention within the workplace. The findings of this work have the potential to contribute to those conversations. Locally, I plan to share the findings through presentation at research seminars and through contributing to teaching relating to students' preparedness for practice. Nationally, I have already been invited to present my findings to the Education Committee of the Royal College of Veterinary Surgeons, to help inform the “Graduate Outcomes” project. This project, with a profession-wide consultation due to be launched in November 2018 (<https://www.rcvs.org.uk/news-and-views/blog/taking-time-to-consider-the-big-picture/>), is redefining both the competences expected of new graduates, and the structure and ethos of the PDP. I am aware that the voice of

employers is less apparent in my research; I hope to engage colleagues beyond my immediate networks in discussion through, for example, an invitation to speak at the Society of Practising Veterinary Surgeons annual conference, and through submission of practitioner-focussed journal articles. More widely, I hope to be able to contribute to wider discussions in healthcare research, highlighting the values of a social perspective on reflection and suggesting ways of privileging subjects' experiences within systems-based approaches. I plan to do this through presentations at conferences such as the Veterinary Education Symposium and the Association for Medical Educators in Europe, and through submission of papers to peer-reviewed journals.

My own transition in the last few years, from empirically-trained clinical educator to social science doctoral student, has been one of challenge and personal development. Learning the languages of social science, delving into previously unfamiliar philosophies and paradigms, and becoming familiar with different approaches to research, has been both exhilarating and, at times extremely, challenging. I have learnt to be more open to, and accepting of, wide-ranging perspectives, and have become more curious as to how and why people experience and understand situations in such different ways. I have come to appreciate the clarity that theory can bring to understanding of complex systems, and been intrigued by the different ways that CHAT in particular is used and communicated in the healthcare literature. The work has generated opportunities for many thought-provoking conversations with colleagues, friends and professional networks. I have tried to understand and balance the expectations and traditions of research communities in social science with those of my clinical colleagues. My next challenge is to embrace opportunities to disseminate and build on what I have learnt, findings accessible ways of communicating my findings to colleagues, such that the outcomes of this research can contribute in some small way to expansive development within the profession.

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# APPENDICES

## APPENDIX A *Recruitment publicity documents*

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**Letter published in Veterinary Record, published 14/5/16**

9<sup>th</sup> May 2016

Dear Colleagues

As part of a Doctorate in Education, I am exploring how reflective practice is experienced by recent graduates in small animal practice. I am currently recruiting University of xxxxxx 2013 graduates, working in all types of small animal practice, to be interviewed as part of this research. The study has ethical approval from the University of Bristol.

I would be very grateful if any 2013 xxxxxx graduates who might be interested in being involved could contact me via the email address below.

Yours sincerely

Sheena Warman

[Sheena.Warman@bristol.ac.uk](mailto:Sheena.Warman@bristol.ac.uk)

**Recruitment email posted on Facebook, 6<sup>th</sup> May 2016**

Dear colleagues

Are you a xxxxx 2013 BVSc graduate working primarily with small animals? If so, I'd like to ask you for some help!

As part of a Doctorate in Education, I am undertaking a research project exploring reflective practice, as experienced by recent graduates in small animal practice. Would you be interested in being interviewed as part of this research? I'm happy to travel, so it doesn't matter where in the country you are working.

I hope this research will help us understand how we can better support vets as they make the transition to practice.

Participants will be invited to take part in an interview, lasting about 1 hour, and will also be asked to share their PDP with me. The study has ethical approval from the University of Bristol.

If you are interested in being involved, or have further questions, please get in touch with me via email ([Sheena.Warman@bristol.ac.uk](mailto:Sheena.Warman@bristol.ac.uk)) or telephone (07711 000266) **by Friday 27<sup>th</sup> May.**

With best wishes

Sheena Warman

## Reminder emails posted on Facebook, 14/5/16 and 26/5/16

14/5/16

Dear 2013 graduates

Thank you very much to the 4 of you that have responded so far to my plea for help. I'm hoping to interview at least 12 of you...and my research leave is all in the next few weeks...so if quite a few more of you felt able to get in touch, I'd be very grateful!

I'm trying to plan travel as efficiently as possible around the country, so it would be incredibly helpful to know as soon as possible where I might need to get to (and if you live near xxxxx, even better!) Please get in touch via email [Sheena.Warman@bristol.ac.uk](mailto:Sheena.Warman@bristol.ac.uk) or telephone 07711 000266. Any questions, feedback, or suggestions to help me recruit, also welcome.

I think that participants so far have found the interview to be a positive experience. And you'd be welcome to pick my brains about a tricky medicine case or two whilst I'm there!

Yours hopefully, Sheena

26/5/16

Dear 2013 Vets

Thank you very much for the enthusiastic response to my pleas for help with my EdD, studying recent graduates' experiences of reflection in practice. I've had a really encouraging number of replies over the last 10 days!

So that my interview participants are as representative of the year as possible (mainly in terms of type of practices), it would be much appreciated if anyone else who is interested could get in touch, *by end of Monday 30th May. In particular it would be good to have a bit more male representation!*

As a reminder, anyone who qualified from xxxxx in 2013 and has spent most of their time working in small animal practice is invited to get in touch. I will then send you more information and ask you to complete a very short form to gather some demographic data; those that are interviewed will also be asked to share their PDP with me. I'm happy to travel to you for interviews.

*Please get in touch via email [Sheena.Warman@bristol.ac.uk](mailto:Sheena.Warman@bristol.ac.uk) or telephone 07711 000266. Any questions, feedback, or suggestions to help me recruit, also welcome.*

Many many thanks  
Sheena

## APPENDIX B *Information sheet for participants in interview*

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### Reflection in Practice Project – Information Sheet

**Project title:** “Understanding and enacting reflection during the transition to small animal veterinary practice

**What is the aim of the project?**

The aim of this qualitative study is to understand how reflective practice is enacted and experienced by recently graduated small animal veterinary surgeons as they make the transition from veterinary student to practitioner.

**How will the research be carried out?**

The researcher will carry out individual interviews with a sample of recent graduates from the University of xxxxx Veterinary School (graduating in 2013), who are working predominantly in small animal practice. RCVS post-graduate deans will also be interviewed, and literature and relevant documents will be analysed.

**Who will carry out the research?**

The research is being carried out by Sheena Warman as part of her studies for a Doctorate in Education at the Graduate School of Education, University of Bristol. Sheena has taught at the University of xxxxx Veterinary School since 2004, and has responsibility for the Final Year of the programme. She is supervised by Dr Sue Timmis (Graduate School of Education, University of Bristol).

**What will participants need to do?**

Any 2013 graduates from the University of xxxxx Veterinary School who are interested in being involved will be asked to complete a short online survey to gather demographic and contact information. A sample of participants will then be invited for interview, reflecting the demographics of the wider profession working in small animal practice. Individual interviews will take place during spring/summer 2016 at the participants’ convenience, and will last 45-75 minutes. Interview participants will also be asked to share their online PDP with Sheena. The PDP will be accessed during the interview as a stimulus for discussion, and analysis of reflective comments within the PDP will be undertaken at a later date. Interviews will be audio-recorded and transcribed for qualitative analysis.

**What about anonymity/confidentiality?**

All data will be treated confidentially and stored securely on University servers. Transcripts of interviews will be anonymised and any identifying comments such as names removed prior to analysis. All data will be treated anonymously in the report of the project and any subsequent publications. Participants will have the right to withdraw from the study at any time. The study has ethical approval from the University of Bristol.

**I’m interested in being involved – who do I contact?**

Please contact [Sheena.Warman@bristol.ac.uk](mailto:Sheena.Warman@bristol.ac.uk) or on 07711 000266.

## APPENDIX C *Recruitment Survey (circulated using Google Forms)*

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### **Reflection in Veterinary Practice**

Thank you very much for your interest in this project; your help is much appreciated. This project is being carried out by Sheena Warman (Sheena.Warman@bristol.ac.uk), and is supervised by Dr. Sue Timmis (Sue.Timmis@bristol.ac.uk), University of Bristol.

By completing this form you give consent for your information to be used as follows: 1) Demographic data will be used to ensure that a representative sample of participants is interviewed; 2) Contact details will be used to communicate with you regarding participation in interviews.

Sheena will aim to contact you regarding possible participation in interviews within 2 weeks of submission of this form. Please note that all data will be anonymised prior to further analysis and reporting.

1. Name:
2. I understand that by completing this form I give consent for the information provided to be used for the purposes of the study: Yes/No
3. Please provide your contact details (include an email address and at least one telephone number):
  - a. Email address
  - b. Home telephone number (optional)
4. What is your current postcode (to help me plan travel)?
5. Gender: Male/Female
6. Date of birth:
7. From which vet school did you qualify?
8. In what year did you qualify as a vet? 2013/2014/Other
9. Since qualifying, approximately what percentage of your work has been with small animals? 0-30%/31-50%/51-70%; >71%
10. Since qualifying, approximately what percentage of your work time has been spent in each of the following types of small animal practice? Private independent/Corporate/Charity/University or referral/Other (with similar percentage options to Q9)
11. How many different practices have you worked in since qualifying?
12. Please list the names of practices where you have worked, and approximate dates of your employment at each. This information will help ensure that interview participants come from a wide range of different practices.

Many thanks! Please enter other comments or queries below (and don't forget to click "submit"!)

## APPENDIX D *Consent form for participation in interview*

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### Reflection in Practice

#### Consent form for recent graduates' participation in interview

April 2016

Thank you very much for agreeing to participate in this study. The study aims to increase our understanding of reflection as an activity undertaken by recent veterinary graduates in small animal practice. The project is being undertaken by Sheena Warman, supervised by Dr Sue Timmis of the Graduate School of Education at the University of Bristol.

Participants in this study will be asked to take part in an interview about their experiences of reflection in practice (45-75 minutes), during which the participants' RCVS PDP will be used to stimulate parts of the discussion. Thus participants are also asked to "share" their RCVS PDP with Sheena Warman. The interview will be audio-recorded; all recordings will be stored securely. Data from the PDP and interview transcriptions will be stored anonymously and securely. All data will be anonymised prior to inclusion in the study.

Participants can choose to withdraw from the study at any point during the interview or within the following 5 days. After this period, participants can withdraw from further communication regarding the study but the researcher will still be able to use any collected data.

Ethical approval has been granted by the University of Bristol (#35421).

Your assistance in this project would be very much appreciated. If you have any queries please contact Sheena Warman ([Sheena.Warman@bristol.ac.uk](mailto:Sheena.Warman@bristol.ac.uk)) or Dr Sue Timmis ([Sue.Timmis@bristol.ac.uk](mailto:Sue.Timmis@bristol.ac.uk)).

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#### Reflection in practice

Please tick/initial the following:

- ☐ I **do** give permission for my interview and related data to be recorded, transcribed and used anonymously in this study
- ☐ I **give consent** to sharing my PDP with Sheena Warman, and for data from the PDP to be included anonymously in the study.

Name of participant:.....

Signature:..... Date:.....



## APPENDIX E *Interview Guide*

**Interview guide for Pilot Interview 14/4/16** (text in green shows edits following the pilot interview)

**Check consent form signed and voice recorder working**

***Note that this is not a proscriptive order – discussion will be flexible around the artefact, whilst ensuring that similar questions are addressed by all participants.***

Introduction: Thank you for coming to talk with me today. As you are aware, I am undertaking research around the reflective practice of new graduates as part of a doctorate in education. This interview is a pilot to help me understand whether the questions I am asking are clear and appropriate to help me answer my research questions. I'm interested in your experiences of reflective practice as a recent graduate. We'll talk about reflective practice in general, then we'll talk about some specific situations that you've experienced; we can use your PDP as a springboard for this. These events might be case related, or perhaps related to other situations such as client or workplace interactions. Please don't feel you need to restrict yourself to activities related to your PDP.

0-5 minutes

- ~~1. So, let's start with a word association game. If I say "reflection" to you, what are the first 3 words that come into your head?~~
  - ~~a. Why do you think those words came to mind?~~
  - ~~b. If I say "reflective practice" – does that change your choice of words at all?~~
1. What do you understand by the term "reflection"?
2. Any by reflective practice?

5-25 minutes **Part 1**

I'd like to discuss a couple of cases or situations that you've experienced. Let's start with one from your PDP (*if they've included a case report*). If no case reports – then perhaps around a procedure? Or another situation? Do you want to choose one or shall I?

1. Can you tell me the **story** around this case?
  - a. *Look for feedback, interactions, past experience, affect?*
3. Thinking back to when this situation occurred, what sort of **thoughts and feelings** did that case trigger in you at the time? (*asking about 2 things but think that is ok here*)
  - a. And now?
  - b. *And what sorts of thoughts and feelings do you think it triggered in the other people involved? (but is this too much reflection on reflection?)*
4. Did you discuss the case/procedure with **anybody else**?
  - a. If so, with whom,
  - b. and where? (*prompt for non vet people*)
  - c. If not, can you tell me the reason for that?
5. What **resources** did you access as you reflected on this case?
  - a. *Prompt as appropriate to case eg textbooks, vds*

6. What did you want to happen **next**, as a result of reflecting on this situation?
  - a. Did that happen?
  - b. How did that happen?
  - c. What helped/hindered this coming about?
    - i. Personally?
    - ii. In the workplace?
7. What did you **learn** from this case/situation?
8. Can you tell me about any aspects of the case that you thought about that **aren't included in your PDP?**
  - a. What were the reasons for not including them?
  - b. *Or, if case/scenario not included in PDP after all, then "Is there a reason why you didn't include this case in your PDP?"*
9. How soon after seeing the case did you **write about it in your PDP?**
  - a. What sort of things influenced how you wrote about the situation in your PDP?
  - b. Did you write about it anywhere else, or express your thoughts in any other way at the time?
  - c. *Did the act of writing it down and thinking about it enough to write it down change anything? If so, how? If not, why not?*
10. Having read through it /*thought about it again* again now, is there **anything else you might think about or do differently?**

25-45 minutes Let's move onto another situation...do you want to choose another case from your PDP or something else? *Repeat as above*

40-55 minutes:

Thinking about your reflective practice in general:

- ~~1.~~ Now that you have experienced a few years in practice, what do you think the **role is of reflective practice?** ~~Is it important?~~ *Or rephrase as: Now that you have experienced a few years in practice, what do you think the purpose is of reflection, for you as an individual? And for the practice?*
- ~~2.~~ *Over the last 2-3 years, In general, what has the sort of case or situation that triggers you to reflect? changed at all (or has your reflective practice changes??*  
*In what way has your clinical practice changed? What do you think is the reason for that?*
  - a. *Has this changed over the last 2-3 years?*
  - b. *In what way has your clinical practice changed?*
  - c. *Is there a link between changes in your clinical and reflective practice?*
- ~~3.~~ Have your **expectations of yourself** changed?
  - a. ~~In what way?~~
  - b. ~~What do you think the reason is for that?~~
4. **When** do you tend to think about your work day?
  - a. *And where? – in what space, time, with whom*
    - i. *What sort of role does social media have?*
  - b. *What about any more formal (or informal – depending on which way interview interpreted first questions) opportunities to discuss your work?*
  - c. *What role has feedback dialogue played for you in practice?*
- ~~5.~~ *(What have been the biggest challenges for you in your work since graduating?)*
- ~~6.~~ *Are there any other examples that we haven't discussed where your reflection on a case or situation has led to a change in practice?*

- ~~7. Can you think back to how you were taught to reflect at vet school?~~ 5. What sort of training or experience in reflection did you have before you started work?
  - a. At University?
  - b. Elsewhere (*other contexts eg sport, music, other jobs, or since graduating*)
  - ~~c. How useful was that?~~ What was the impact on you?
  - d. Would you do anything differently to ~~teach~~ train people to reflect?
6. *For graduates who've had more than one job...*
  - a. What was the impact of different workplace cultures on your reflective practice?
7. Regarding the PDP, can you tell me a bit about your experiences with it?
  - a. How did you go about completing it? *Notebooks, frequency etc*
  - b. How did you feel about completing the PDP?
  - c. What sort of interactions did you have with your post-graduate dean?
  - d. What sort of interactions were there with other people and your PDP?
  - e. Did completing your PDP lead to any changes in outcome?
    - i. Did the act of writing your reflections, rather than thinking/talking about them, change anything?
  - f. Where did the PDP "sit" within your overall reflective practice?
  - g. Have you got any suggestions for how the PDP could be improved?

Thank you very much for taking part in this interview. Do you have any further thoughts at this point?

I'll be in touch when the transcript is available I will invite you to review it and let me have any further thoughts or comments at that stage. Many thanks for your support.

Interview Guide following Pilot Interview (text in green represents edits following first two interviews)

Check consent form signed and voice recorder working

***Note: this is not a proscriptive order – discussion will be flexible whilst ensuring that similar questions are addressed by all participants.***

Introduction: Thank you for coming to talk with me today. As you are aware, I am undertaking research around the reflective practice of new graduates as part of a doctorate in education. I'm interested in your experiences of reflective practice as a recent graduate. We'll talk about some specific situations that you've experienced. These events might be case related, or perhaps related to other situations such as client or workplace interactions. We can use your PDP as a springboard for this, but please don't feel you need to restrict yourself to activities related to your PDP. After that we'll talk about reflective practice more generally. So, let's get started...

0-5 minutes: **Introduction**

- Can you tell me a little about the practices where you've been employed? Private/corporate/charity, how many vets?
- What do you understand by the term "reflection"?
- And by "reflective practice"?

5-25 minutes: **Part 1**

I'd like to discuss a couple of cases or situations that you've experienced. Let's start with one from your PDP (*if they've included a case report*). If no case reports – then perhaps around a procedure? Or another situation? Do you want to choose one or shall I?

1. Can you tell me the **story** around this case?
2. Thinking back to when this situation occurred, what sort of **thoughts and feelings** did that case trigger in you at the time?
  - a. And now?
  - b. And what do you think the other people involved thought/felt?
3. Did you discuss the case/procedure with **anybody else**?
  - a. If so, with whom, and where? (*Prompt: any non-vet people*)
  - b. If not, can you tell me the reason for that?
4. What **resources** did you access as you reflected on this case? How helpful were they? (*Prompt: eg referral centres, textbooks, VDS*)

5. What did you want to happen **next**, as a result of reflecting on this situation?  
(*Note that if everything went well, this question is of more limited value.*)
  - a. Did that happen?
  - b. **How did that happen?**
  - c. What helped/hindered this coming about? (*Prompt: personally? In the workplace?*)
6. What did you **learn** from this case/situation? **And have you put that into practice since?**
7. Can you tell me about any aspects of the case that you thought about that **aren't included in your PDP?**
  - a. What were the reasons for not including them?
  - b. *Or, if case/scenario not in PDP after all, then...."Is there a reason why you didn't include this case in your PDP? If so, what was it?"*
8. How soon after seeing the case did you **write about it in your PDP?**
  - a. What sort of things influenced how you wrote about the situation in your PDP?
  - b. Did you write about it anywhere else, or express your thoughts in any other way at the time?
  - c. Was writing about the situation helpful for you? In what way?
  - d. **What was the most useful way for you to think about/reflect on the case? Why?**
9. Having read through it again/*thought about it again* now, is there **anything else you might think about or do differently?**

**25-45 minutes Part 2** Let's move onto another situation...do you want to choose another case from your PDP or something else? **Repeat above for second story.**

**40-60 minutes: PART 3** – This part will vary depending on the conversations that have happened in the situation-based sections 1 and 2. It may well be that much of this discussion has already happened.

Thinking about your **reflective practice in general:**

1. Now that you have experienced a few years in practice, what do you think the **value** is of reflection, for you as an individual? And for the practice?
2. **Have there been times when you've avoided reflecting on a situation? If so, when and why?**
3. Are you aware of particular **situations that trigger** reflection for you? Can you give me some examples? **Remove the sub questions here.**
4. **When and where** do you tend to think about your work day?
  - a. **Do you talk with others** about your work? When and where?
  - b. What role does **social media** have?
  - c. Can you give me any examples of more **formal opportunities** for discussion of your work that you've experienced, and **how helpful these have been?**

5. Can you give me any more examples of where reflection has **led to a change** for you? Or your workplace?
6. What do you think has **supported your ability to reflect** and how has this helped? *And removed some sub-questions here*
  - a. At university? At work?
  - b. Elsewhere (other contexts eg sport, music, other jobs, or since graduating)?
7. For graduates who've had more than one job.....
  - a. Have **different workplaces cultures** impacted on your reflective practice?
8. Regarding the **PDP**, can you tell me a bit about your experiences with it? *Further prompts for me if necessary:*
  - a. How did you go about completing it? Notebooks, frequency etc
  - b. How did you feel about completing the PDP?
  - c. What sort of interactions did you have with your post-graduate dean?
  - d. What sort of interactions were there with other people and your PDP?
  - e. Did completing your PDP lead to any changes in outcome?
    - i. Did the act of writing your reflections, rather than just thinking/talking about them, change anything? *Do you still write?*
  - f. Where did the PDP "sit" within your overall reflective practice?
  - g. Have you got any suggestions for how the PDP could be improved?

Thank you very much for taking part in this interview.

**Do you have any further thoughts at this point?**

I'll be in touch when the transcript is available; I will invite you to review it. Please do let me have any further thoughts or comments at that stage. Many thanks for your support.

## APPENDIX F *Thematic analysis templates*

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### **Thematic analysis 1: Delineation of activity**

- Subject - see Thematic analysis 2
- Object
- Tools
  - Psychological tools
    - Language
      - Talk
        - Informal conversations: colleagues, clients, family
        - Formal conversations: review meetings, clinical governance meetings
      - Writing
        - Digital tools (email, WhatsApp, Facebook, text); PDR; online communication with post-graduate dean
      - Thinking
    - Frameworks for reflection
  - Material tools
    - PDR, clinical records, library resources, post-graduate portfolios, meeting proformas, personal resources, PDP guidance
- Rules (incorporating multivoicedness)
  - Voice/rules of RCVS
  - Voice/rules of workplace management
  - Voice of client
- Communities
  - Colleagues (peers, senior vets, nurses and administrative staff)
  - Friends (vet friends; non-vet friends)
  - Family and partner
  - Post-graduate dean
- Division of labour
  - Practice hierarchy, structure, rotas
  - Responsibilities defined within PDP
- Actions and goals: Completing PDP through engaging in reflective actions which lead to:
  - Personal development
    - Personal technical skill-related development
      - Identifying gaps
      - Learning specific procedures or theory
    - Personal professional skill-related development
      - Communication with clients
      - Trusting judgement, standing ground, when to worry
  - Practice level development - Changes to practice/policies

## **Thematic analysis 2: Exploring subjectivity**

### **Affect**

- Affective valence impacting on decisions as to reflective actions
  - Negative valence
  - Positive valence
- Tacit aspects of affect on reflective activity
  - Impact of new graduate “panic”
  - Temporary negative feelings due to e.g. tiredness
  - Longer-term negative feelings
- Impact of perceptions of workplace mood on reflective activity
  - Positive
  - Negative
- Feelings as trigger for reflection
  - Negative feelings
  - Positive feelings
- Different actions for different challenges
  - Object - what motivates the activity
  - What action
  - With whom

### **Historicity (prior experience)**

- Subject's history impacting reflective activity
  - Vet school experiences
  - Previous work experience
  - Family/health factors

### **Continuity of experience**

- Learning from individual situations
  - Self-related
    - Clinical learning
    - Client management
    - Trusting instincts
    - Learning value of different reflective actions
  - Collective (practice) level – changes in practice protocols
- Development over time
  - Gaining confidence, standing ground
  - Dealing better with feelings and uncertainty

### **Expansive development**



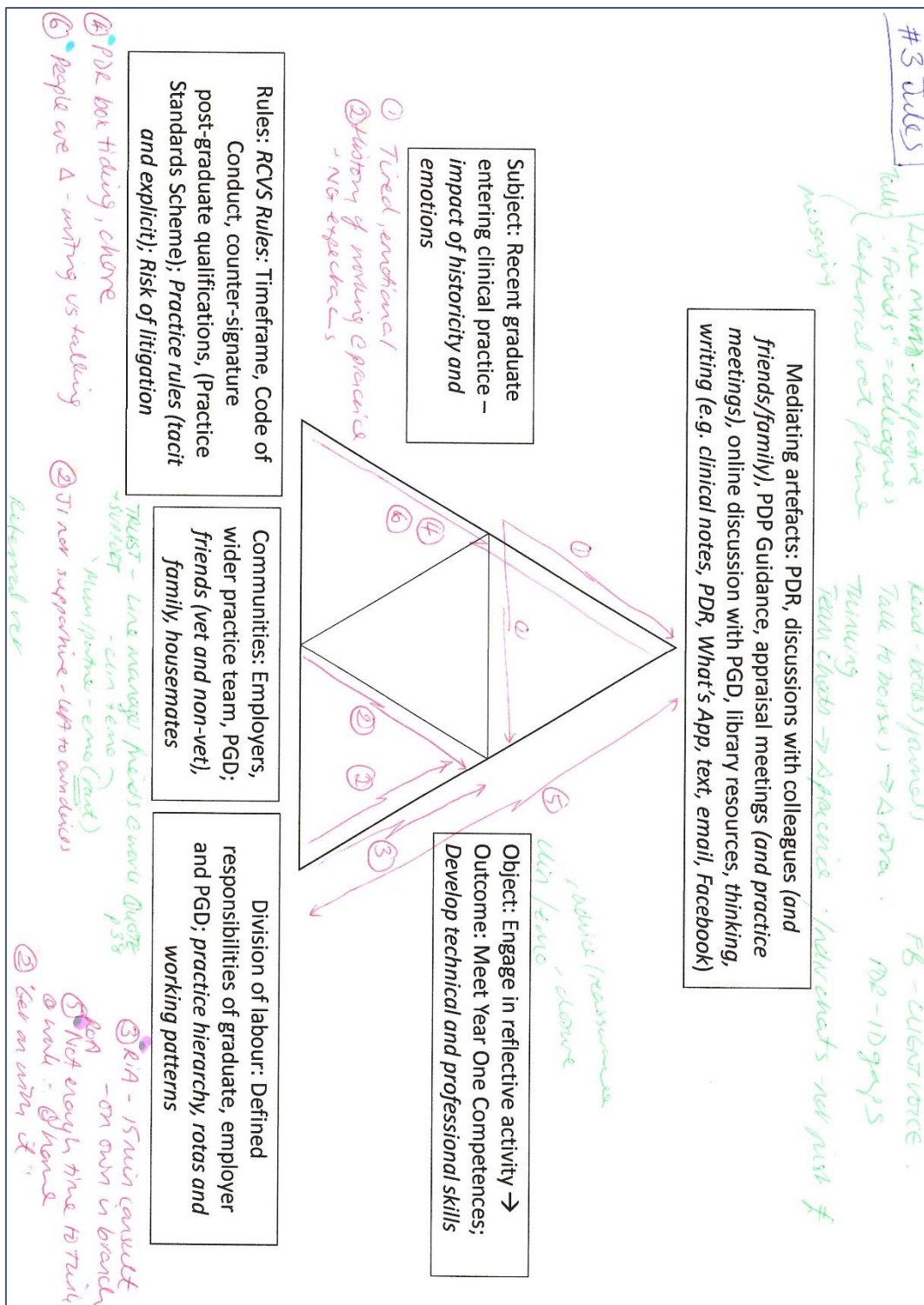
### Thematic analysis 3: Contradictions

1. The need for support
  - a. Converting worry into goal-driven reflective action (subject:object)
  - b. Other individual's perceived attributes creating conflict that limits use as a resource (community:tool)
    - Colleagues in practice
    - Family/friends
    - Post-graduate deans
  - c. Workplace culture restricting opportunities for reflective actions (division of labour:tool)
    - Hierarchy and blame
    - Working patterns
    - Contradictions between RCVS expectations and realities of PDP
2. Formalising the informal
  - a. Contradiction in object between PDP Guidance and format of PDR (tool:object)
    - Clinical competence vs reflective skills
    - Technical vs professional skills
  - b. Conflict between preferred and required reflective actions (subject:tool)
  - c. Impact of rules on object of written reflective activity (rules:object)
    - Causes resentment and imposes limitations
    - Voice of RCVS

[illegible]

## APPENDIX H *Example of triangle heuristic used to explore a participants' actions, conflicted action and contradictions*

Green writing indicates actions and aspects of system that helped to achieve goals/object. Red writing indicates examples of conflict and contradictions. Suggestions of system-level contradictions are shown by red arrows.



[illegible]



**GSoE RESEARCH ETHICS FORM – NOTES FROM ETHICAL DISCUSSION**

**Name(s):** Sheena Warman

**Proposed research project:** Understanding and enacting reflection during the transition to veterinary practice: A cultural-historical activity theory perspective

**Proposed funder(s):** None

**Discussant for the ethics meeting:** Julie Williams *BDS, MFGDP, DPDS, MA, MORTH, DDS* (PhD student in dental education, and a practising dentist)

**Name of supervisor:** Sue Timmis

**Has your supervisor seen this submitted draft of your ethics application?** Sue has seen the version drafted in advance of the ethical discussion with Julie

Please include an outline of the project or append a short (1 page) summary:

**Project outline:**

It is well established that critical reflection is essential in the development of an effective professional. However in the pragmatic, problem-solving environment of clinical practice, reflection can seem a rather abstract and subjective concept, and may be a tacit process for experienced practitioners. Whilst reflection in veterinary practice in the UK is widely promoted and is expected by the profession's governing body (the Royal College of Veterinary Surgeons, RCVS), the process or activity is poorly defined. Recent graduates are required to complete the Professional Development Phase, assessed via an online reflective portfolio, within 3 years of graduation.

The aim of this study is to understand how reflective practice is enacted by recently graduated small animal veterinary surgeons as they make the transition from veterinary student to practitioner, using cultural-historical activity theory (CHAT) as a theoretical framework. Research questions are:

1. How is reflective activity mediated by recent veterinary graduates in small animal practice?
2. How does past experience influence reflective activity?
3. What is the interaction between feedback from others and reflective activity?
4. What role does affect play in brokering and motivating reflective activity?
5. What challenges and tensions are apparent within the activity system?
6. What is the relationship between reflective activity and wider professional practice?

The design of this project will incorporate literature review, analysis of documentation, and semi-structured stimulated-recall interviews with recent graduates, and interviews with RCVS post-graduate deans. A combination of inductive and deductive thematic analysis techniques will be used to define the activity system and address the research questions; this will be followed by dialectic analysis to further explore the tensions and challenges experienced within the system.

**Ethical issues discussed and decisions taken (see list of prompts overleaf):**

***Notes made during the ethical discussion meeting between Sheena Warman and Julie Williams are in italics.***

***This application is supported by a document entitled “Warman – appendices for ethical application”***

#### **1. Researcher access/ exit**

Twelve to fifteen veterinary surgeons will be recruited from the 2013 and 2014 cohorts of University of xxxxx Veterinary School graduates, and restricted to those working

primarily in small animal practice (which employs 54% of UK veterinary surgeons). Consideration has been given to a variety of recruiting and sampling strategies.

Initial identification of interested individuals will be undertaken in the following ways:

- An email sent to all 2013 and 2014 xxxxx graduates from the RCVS (the RCVS has in principle agreed to assist with this), asking interested individuals to contact the researcher for more information; a follow-up email will be sent a week later.
- A letter in the Veterinary Record inviting interested individuals to contact the researcher
- Using personal contacts to initiate a snowballing strategy inviting interested individuals to contact the researcher for more information; social media may be used indirectly in this instance to raise awareness of the project. The researcher does not have access to e.g. group Facebook pages of the relevant cohorts, but it is likely that personal contacts may use these as a means of contacting their peers.
- An email from the contacts list supplied via the Alumni Office (it is not yet clear if this will be permitted) asking interested individuals to contact the researcher for more information. If the Alumni Office is able to assist with this, then it is likely that only a single email will be sent.

Interested individuals will then be emailed by the researcher asking them to complete an online recruitment survey (within Google), requesting basic demographic and practical information (gender; year of graduation; whether veterinary degree was first or postgraduate degree, number, type and name of practices employed in since graduating; contact details; preferred days/times for interviews) so that a purposive sampling strategy can be used to ensure the study population reflects the general demographic of vets working in small animal practice.

The researcher will liaise with participants to identify a mutually convenient time and place for a 45-75 minute interview; it is anticipated that this will often be in the evenings or at weekends. Where participants' employers are willing to allow time for interviews

during the working day, the researcher will offer to discuss the project directly with the employer/manager. The researcher will routinely offer to travel to the participant's preferred location so as not to incur costs to the participant. Locations are likely to include practice premises and homes; public places such as cafes are not considered appropriate due to the need to record the interview and the potential for discussion of sensitive topics. Some participants may prefer to travel to the UOB campus at Langford. Participants will also be asked to "share" their online PDP with the researcher; this facility is available through the RCVS online portfolio.

The researcher is already in contact with the post-graduate deans of the RCVS and will have introduced the project to them at a meeting in mid-April 2016. It is anticipated that a group interview will be held with the deans for data collection in early 2017, during one of their meetings at the RCVS. The RCVS has indicated that it is supportive of this project.

*Discussed adding email communication with RCVS regarding this - see Appendix 1.*

All participants will be thanked via email following their participation and invited to contact the researcher if they have any further questions.

## **2. Information given to participants**

Participants will be provided with information at different stages (see Appendix for further information):

- The initial **invitation email** will briefly outline the purpose of the study and ask interested individuals to contact the researcher (Appendix 2)
- An **information sheet** (Appendix 3) will be sent via email to interested participants with the link to the online recruitment survey. This information sheet will give an overview of the project, explain the role of participants in the interviews, and outline how data will be recorded and stored. It will also explain that participants will be asked to "share" their PDPs with the researcher.



- The **recruitment survey** (Appendix 4) will be headed with a brief outline of the project. It will include a question confirming that the participant gives consent for their data to be used anonymously in the project, and consent for their contact details to be used.
- Interviewees will be asked to sign a **consent form** (Appendix 5a and 5b) at the start of the interview.
- A topic guide will be used for the interviews (Appendix 6)
- Following the interview, interviewees will be contacted via email thanking them for their participation and inviting any further comments. They will then be sent **an invitation to review a transcript** of their interview. Any further comments will be collated (via email or via contemporaneous notes of conversations).

### 3. Participants' right of withdrawal

It will be made clear to participants, via the information sheet, that participants may choose to withdraw from the study at any time. However it will be made clear that data gathered up to the point of withdrawal will still be included in the study

*This has been discussed with supervisor who indicates that this is acceptable.*

If participants have questions regarding the research, they will be asked to contact the researcher or her supervisor; contact email details for both will be included on the consent forms.

### 4. Informed consent

Participants will be asked for written consent at each stage of the project: for use of demographic data via the online survey, and prior to interviews *for use of recorded/transcribed data and data from the PDP* (see Appendix 4). Given the interpretivist paradigm within which this project is situated, there will be open communication between the researcher and the participants regarding the project;

however the research questions and interview questions themselves will not be routinely shared prior to interviews.

## **5. Complaints procedure**

All participants will be given contact details of both the researcher and her supervisor, via the information sheet, survey and consent forms.

*Following discussion, decided to add: If any participants or potentially their colleagues have any concerns, they will be welcome to raise these with the researcher or, if this is not appropriate due to the nature of the concerns, with her supervisor.*

## **6. Safety and well-being of participants/ researchers**

The project will not pose any physical risks to the researcher or participants. It is possible that interviews will lead to some affective challenges for participants in particular. The researcher will handle these situations sensitively, asking participants if they wish to terminate the interview, and provided support as is appropriate to the situation. The researcher has many years' experience of working with final year veterinary students, including many of the participants, and is aware of when it is appropriate to direct individuals to alternative support systems such as those coordinated by the charity "VetLife".

*Researcher safety was considered as she will be a lone worker travelling and gathering data from recent graduates in their workplaces/homes. She will ensure that another individual is aware of her travel plans and anticipated time of return, and will ensure she has a mobile phone with her. We also discussed issues around making personal mobile number available to participants; all the participants will be known to the researcher and whilst the potential impact of this has been considered, it is not thought to present a significant risk. The researcher is well supported by her academic community if she has any concerns regarding participant or her own well-being, and also has access to resources such as VetLife.*

## **7. Anonymity/ confidentiality**

Data collected via the online survey will by necessity need to be linked to the participants so that sampling and interviews can be arranged. All data will be treated confidentially.

Interview data will be recorded digitally and transcribed by a company approved by the University of Bristol; transcripts will be identified by a participant number. All data, including the document linking participants with their number, will be stored securely on the University server, and only accessed via University-owned computers. It will not be possible to anonymise the shared PDP at the point of data analysis by the researcher. Care will be taken to ensure that all data used in any reports or subsequent publications cannot be traced to the individual.

Any names contained within the transcripts e.g. of practices or colleagues, will be assigned an anonymising identifier by the researcher.

## **8. Data collection and storage**

Demographic data will be collected via the Google online survey and results downloaded and stored on the University server. Audio recordings of interviews will be copied to the University server as soon as is possible following the interview, and deleted from the recording device. Interview data will be transcribed either by the researcher or a company approved by the University for this purpose, and University guidelines will be followed for movement of audio and transcript files between the researcher and the transcriber.

Participants will be asked if they have any concerns regarding the recording of the interview or the researcher accessing and using data from their PDP as part of the informed consent process.

The researcher will keep a hand-written research journal. This will be stored securely in her home and/or office, and care will be taken to ensure any information recorded is anonymised.

## **9. Data analysis**

Data will be analysed by the researcher; data will also be accessed by the supervisor and selected colleagues of the researcher for co-coding purposes. Data will be accessed routinely via the University server. Any data which is required to be shared by other means (e.g. via email) will be anonymised, encrypted and password-protected so that it cannot be traced to the participant.

## **10. Data storage**

See above under “Data collection and storage”.

## **11. Data Protection Act**

Ensuring that data is kept on the University server will comply with the DPA. The information gained will not be used for purposes other than the intended study. Care will be taken in creation of the demographic survey that information is only collated that is essential for sampling and contact purposes. *Care will be taken to ensure that information gathered during the interview process is limited to that relevant to the research questions.*

## **12. Feedback**

Participants will be invited to review a transcript of their interview and a summary of the field-notes as part of a “member checking” process. Any discussions between the researcher and the participant following this will be recorded either via email or from contemporaneous notes of conversations; if there are any areas of lack of shared understanding, these will be noted and reflected upon within the research journal. An abstract of the final thesis will be circulated to all participants at the end of the project.

## **13. Responsibilities to colleagues/ academic community**

Given that the PDP is a requirement for ongoing accreditation of recent graduates, and the current discourse within the profession relating to it, there is a responsibility to report any criticisms *of the PDP* in a sensitive and constructive manner, *whether in*

*published reports or in the thesis itself, as these can be accessed electronically and will be in the public domain.*

*We discussed issues around a participant reporting their own or a colleagues' unprofessional or potentially illegal activity. The researcher has previously had academic responsibilities for the participants, which raises potential issues of power and expectation on the part of the participant. Additionally the researcher is a practising veterinary surgeon with responsibilities to the profession. In the unlikely event of such a situation arising, the researcher will offer the participant an opportunity to discuss the issue outwith the boundaries of the research project; in the very unlikely event of a situation which warrants disclosure to relevant professional bodies, the researcher will give disclosure full and deliberate consideration, including anonymous discussions with a colleague.*

#### **Reporting of research**

Participants will be made aware of any reports or publications generated by the project.

If you feel you need to discuss any issue further, or to highlight difficulties, please contact the GSoE's ethics co-ordinators who will suggest possible ways forward.

Signed:  (Researcher)

Signed:  (Discussant)

Date: 14/4/16